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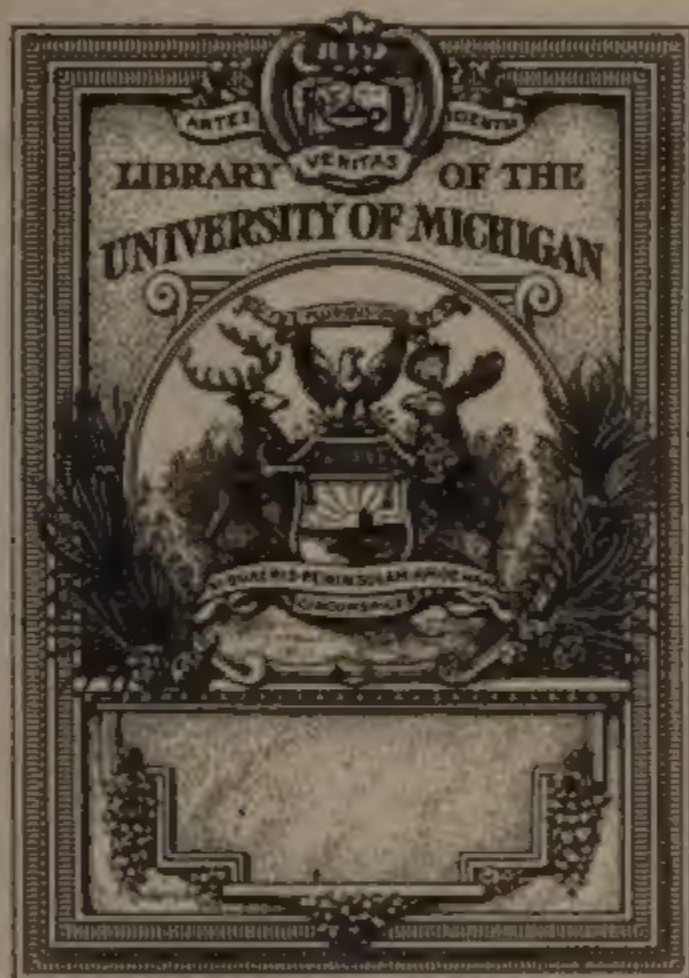
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THE BRITISH  
GYNÆCOLOGICAL JOURNAL  
VOL. XVIII.





# THE BRITISH GYNÆCOLOGICAL JOURNAL

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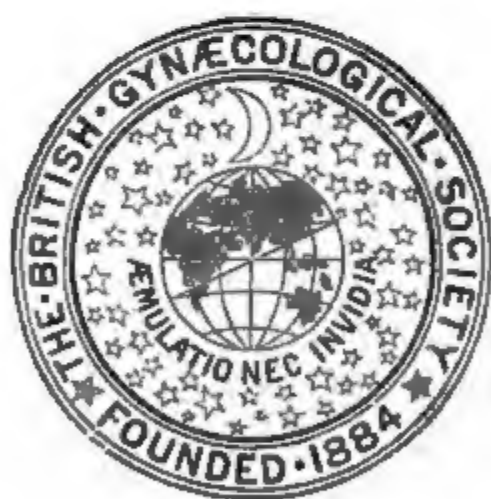
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VOL XVIII.

EDITED BY

J. J. MACAN, M.D.



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- 1889 BAGOT, WILLIAM S., M.D.Dub., L.R.C.S.I., *Gynæcologist to St. Luke's Hospital, Denver, Color., Ex-Senior Assistant Physician Rotunda Hospital, Dublin*, 532, Seventeenth Street, near Wellow, Denver, Color., U.S.A.
- L. 1888 BAKER, CLARENCE ATTWOOD, M.D., 312, Congress Street, Portland, Maine, U.S.A.
- L. 1885 BAKER, WILLIAM HENRY, M.D., *Professor of Gynæcology Harvard University, Surgeon to the Free Hospital for Women, Boston*, 22, Mount Vernon Street, Boston, Mass., U.S.A.
- 1898 †BAKEWELL, ROBERT TURLE, M.B.Lond., 27, Welbeck Street, Cavendish Square, w.
- 1887 BALLERAY, G. H., M.D., 115, Broadway, Paterson, Jersey, U.S.A.
- L. F.F. †BANTOCK, G. GRANVILLE, M.D., F.R.C.S.Edin., *Consulting Surgeon to the Samaritan Free Hospital*, 12, Granville Place, Portman Square, w. Trustee. V.-P. 1884-6 & 1887-9. Pers. 1887. Treas. 1888-90. C. 1891-3. Libr. 1894-6.
- L. F.F. †BARBOUR, A. H. FREELAND, M.A., B.Sc., M.D., *Assistant Obstetric Physician Royal Infirmary, Edinburgh*, 4, Charlotte Square, Edinburgh. C. 1884-8 & 1901-3. V.-P. 1893-5.

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Elected

- F.F. †BARNES, ROBERT, M.D., F.R.C.P., *Consulting Obstetric Physician to St. George's Hospital, Consulting Physician to the Royal Maternity Charity, &c., &c., Bernersmede, Eastbourne.*  
Hon. Pres. 1884-1902.
- F.F. †BARNES, R. S. FANCOURT, M.D., M.R.C.P., F.R.S.E., *Physician to the British Lying-in Hospital, and the Royal Maternity Charity, 36, Broadwater Down, Tunbridge Wells.* Trustee.  
Editor 1884-1891. Hon. Sec. 1884-6. V.-P. 1887-9 & 1892-4.
- 1899 †BARRETT, JAMES FRANCIS, M.B., B.Ch., R.U.I., *Edburga House, The Bank, Highgate.*
- L. 1886 BARRINGTON, FOURNESS, M.B., F.R.C.S.Eng., 213, Macquarie Street, Sydney, Australia.
- 1898 †BARTER, WILLIAM, M.D., M.Ch., R.U.I., 47, Greencroft Gardens, West Hampstead, N.W.
- 1899 †BARTON, CHARLES NATHANIEL, M.R.C.S., L.R.C.P., 17, Redcliffe Gardens, S.W.
- L. 1885 BATCHELOR, FERDINAND CAMPION, M.D.Durh., M.R.C.S.Eng., L.S.A., L.R.C.P.Edin., *Lecturer on Midwifery and Gynaecology University of Otago, George Street, Dunedin, New Zealand.*  
V.-P. 1893-5.
- L. F.F. †BAYFIELD, HORACE OSBORNE, L.R.C.P.Edin., L.F.P.S.Glasg., Tracadie, Merton Road, Wimbledon, S.W.
- 1892 BECKWITH, FRANK E., M.D., 139, Church Street, New Haven, Conn., U.S.A.
- F.F. BELL, ROBERT, M.D., F.F.P.S.Glasg., *Physician to the Glasgow Institute for Diseases of Women and Children, 29, Lynedock Street, Glasgow.* C. 1885-7. V.-P. 1891-3.
- 1898 †BELLIS, EDWARD, L.R.C.P., L.R.C.S.I., 81, Holland Park Avenue, Notting Hill, W.
- F.F. †BENNETT, CHARLES HENRY, M.D., M.R.C.S., L.S.A., *College House, Hammersmith, W.*  
Auditor. C. 1892-4. V.-P. 1895-7.
- F.F. †BERTOLACCI, JOHN HEWETSON, L.S.A., *Junior Conservative Club.*
- 1886 †BIGGS, MOSES G., M.R.C.S., 101, Northcote Road, New Wandsworth, S.W.
- 1898 †BISHOP, EDWARD STANMORE, F.R.C.S.Eng., L.R.C.P.Edin., *Surgeon to the Ancoats Hospital, 316, Oxford Road, Manchester.* V.-P. 1903. C. 1901-2.
- L. F.F. †BLAKE, EDWARD, M.D., *Berkeley Mansions, 64, Seymour Street, Hyde Park, W.*
- 1898 †BLAKISTON, AUBREY, L.R.C.P., L.R.C.S.Edin., 5, Grosvenor Street, Grosvenor Square, W.
- 1901 BODDEART, EUGENE, M.D., *Gand Coupure, 46, Ghent, Belgium.*
- L. 1890 BOLDT, H. J., M.D., 39, East 61st Street, New York, U.S.A.
- 1903 BOSSI, Professor L. M., *Director of the Obstetrical and Gynaecological Clinic, Genoa.*
- 1891 †BOURKE, W. H., M.D., 8, Moreton Gardens S.W. C. 1900-2.



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- 1887 †BOURNS, N. WHITELAW, M.D.Brux., M.R.C.S.Eng., L.R.C.P.  
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C. 1899.
- 1887 †BOWIE, ALEX., M.D., C.M., 4, Hertford Street, Park Lane, w.
- 1902 BOWIE, ROBERT FORBES, M.R.C.S., L.R.C.P., *Staff-Surgeon*  
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- L. 1885 BOYD, JAMES P., M.D., *Professor of Obstetrics and Gynæcology*  
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- 1891 †BREWIS, N. T., M.B., C.M., F.R.C.P.Edin., *Assistant Gynæcologist*  
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- 1893 †BRIDGER, ADOLPHUS E., M.D., F.R.C.P.Edin., *Physician St.*  
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- 1899 †BROWN, JOHN HENRY, M.D.Edin., M.R.C.S., 14, Burngrave  
Road, Sheffield.
- 1896 \*BROWNE, RALPH HENRY, M.D., M.R.C.S., L.R.C.P.Lond.
- L. 1889 BROWNLEE, MILNE, M.D., Woodstock, Ontario, Canada.
- L. 1885 BUDIN, PIERRE, M.D., *Professeur agrégé à la faculté de Médecine*  
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- 1892 BUMM, ERNEST, M.D., *Professor of Obstetrics and Gynæcology in*  
*the University of Halle a. S.*
- 1887 †BURFORD, GEORGE HENRY, M.B., C.M.Aberd., 35, Queen Anne  
Street, w.
- 1898 †BURKE, PATRICK JOSEPH, M.D., M.Ch., M.A.O., R.U.I., 23, Long  
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- 1887 †BURY, EDWARD CHARLES, M.D.St.And., M.R.C.S., L.S.A., 5,  
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- L. F.F.†BUXTON, DUDLEY WILMOT, M.D., B.S., M.R.C.P.Lond., *Anæ-*  
*sthetist to University College Hospital*, 82, Mortimer Street,  
Cavendish Square, w.  
C. 1895-7.
- 1885 †BYERS, JOHN WILLIAM, M.A., M.D., M.Ch., R.U.I., M.R.C.S.E.,  
L.M., R.C.P.I., *Professor of Midwifery and Diseases of Women*  
*and Children, Queen's College, Belfast, and Physician for*  
*Diseases of Women to the Royal Hospital, Belfast*, Lower  
Crescent, Belfast.  
Hon. Loc. Sec. C. 1893-5. V.-P. 1896-8.
- 1894 BYFORD, HENRY T., M.D., 100, State Street, Chicago, Ill., U.S.A.
- 1887 CALDWELL, W. SPENCER, M.D., Freeport, Ill., U.S.A.
- F.F. †CAMBRIDGE, THOMAS ARTHUR, M.R.C.S.Eng., L.S.A., Stanley  
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C. 1887-9. V.-P. 1890-2.
- 1887 CAMERON, J. C., M.D., *Professor of Midwifery McGill University*,  
941, Dorchester Street, Montreal.
- 1895 †CAMERON, MURDOCH, M.D., *Regius Professor of Midwifery and*  
*Diseases of Women in the University of Glasgow*, 7, Newton  
Terrace, Glasgow.  
Hon. Loc. Sec. C. 1899-1901. V.-P. 1902-3.

*List of Fellows of the*

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- 1898 \*CAMERON, WILLIAM JOHN, M.B.Lond.
- 1897 CAMPBELL, COLIN GRAHAM, M.B., C.M.Edin., Vancouver Club, Vancouver, B.C.
- 1894 †CAMPBELL, JOHN, M.A., M.D., M.Ch., M.A.O., R.U.I., F.R.C.S. Eng., *Senior Physician Samaritan Hospital for Women, Belfast*, Crescent House, University Road, Belfast.  
C. 1899-1901. V.-P. 1902-3.
- 1892 CAMPBELL, MALCOLM, M.A., M.D., C.M., 20, Coates Crescent, Edinburgh.
- F.F. CAMPBELL, WILLIAM FREDERICK, L.R.C.P.Edin., L.F.P.S.G., L.S.A.Lond., 67, Bentham Road, South Hackney.
- 1892 CANNADAY, C. G., M.D., Roanake, Virginia, U.S.A.
- L. 1886 CARSTENS, J. HENRY, M.D., Detroit, Michigan, U.S.A.
- 1891 †CARTER, ARTHUR JOSEPH, M.R.C.S., 75, Shepherd's Bush Road, w.
- F.F. †CARTER, GEORGE ROE, M.R.C.P.I., L.R.C.S.I., Oakhurst, 2, Anerley Park, s.e.  
C. 1899-1901 & 1903.
- 1901 †CARTON, PAUL, M.D., B.Ch., B.A.O.Dub., *Assistant Master Rotunda Hospital, Dublin*, 35, Rutland Square, Dublin.
- F.F. †CARVELL, JOHN MACLEAN, M.R.C.S., L.S.A., 24, Queen's Gardens, Brownhill Road, Hither Green, s.e.
- 1898 †CARWARDINE, THOMAS, M.S.Lond., F.R.C.S.Eng., 16, Victoria Square, Clifton, Bristol.
- F.F. †CASE, WILLIAM, M.R.C.S., L.S.A., Denmark House, Caister-on-Sea, Norfolk.
- 1895 †CHAMBERS, EBER, M.D.Aberd., M.R.C.S., *District Medical Officer City of London Lying-in Hospital*, 1, Wilmington Square, w.c.  
C. 1902. V.-P. 1903.
- L. 1885 CHAMBERS, P. FLEWELLEN, M.D., 26, West Forty-seventh Street, New York, U.S.A.
- 1898 †CHEETHAM, SYDNEY WILLIAMS, M.R.C.S., L.R.C.P.Lond., 233, Romford Road, e.
- 1892 CHENEY, BENJAMIN AUSTIN, M.D., 40, Elm Street, New Haven, Connecticut, U.S.A.
- 1898 CHESTNUT, HENRY, L.R.C.P., L.R.C.S.Edin., Tralee, co. Kerry, Ireland.
- 1898 CHESTNUTT, JOHN, B.A., R.U.I., L.R.C.S., L.R.C.P., Derwent House, Howden, East Yorkshire.
- 1895 †CLARK, TOM, L.R.C.P. & S.Edin., 1, Westburn Street, Eaton Square, s.w.
- L. 1887 †CLARK, THOMAS KILNER, F.R.C.S.Eng., M.D., M.A.Camb., *Surgeon Huddersfield Infirmary*, 66, John William Street, Huddersfield.  
C. 1895-7.
- 1898 \*CLARKE, JOSEPH JOHN, L.R.C.P.I., L.S.A.
- 1898 †CLARKE, RICHARD ASHMORE, L.R.C.P.I., L.R.C.S., *Surgeon to Teddington Cottage Hospital*, Goudhurst, Teddington.

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- 1896 †CLAYTON, CHARLES HOLLINGSWORTH, M.R.C.S., L.R.C.P., 10, College Terrace, Belsize Park, N.W.
- 1886 CLEGHORN, GEORGE, M.D.Durh., Blenheim, Marlborough, New Zealand. C. 1893-5.
- L. F.F. CLENDINNEN, FREDERICK JOHN, L.R.C.P.Lond., L.R.C.P., L.R.C.S.Edin., 465, Malvern Road, Hawksburn, Melbourne, Australia. Hon. Loc. Sec.
- 1899 COATES-COLE, J. M., M.R.C.S., L.R.C.P., Maracaibo, Venezuela, S. America.
- 1898 †COKER, OWEN COLE, L.R.C.P., L.S.A., 155, Uxbridge Road, W.
- 1893 †COLENZO, ROBERT J., M.A., M.D.Oxon., M.R.C.S., 91, Cromwell Road, S.W. C. 1902-3.
- 1890 †COLLINS, E. TENISON, M.R.C.S., L.S.A., *Gynæcologist to Cardiff Infirmary*, 12, Windsor Place, Cardiff. Hon. Loc. Sec. C. 1896-8.
- 1903 COOK, JAMES WILLIAM, M.B., C.M.Aberd., 26, Manchester Road, Bury, Lancashire.
- L. F.F. CORDES, AUGUSTE E., M.D.Paris, M.R.C.P.Lond., *Privat-Docent of Midwifery, ex-chirurgien adjoint à la Maternité*, 12, Rue Bellot, Geneva. V.-P. 1897-9.
- 1900 †CORRIGAN, WILLIAM JENKINSON, F.R.C.S.I., L.R.C.P.I., L.M., Cloughmore, Splott Avenue, Cardiff.
- 1900 †COWEN, RICHARD JOHN, L.R.C.P.I., L.M., L.R.C.S.I., L.M., 25, Clarges Street, Piccadilly, W.
- 1898 †CRABBE, JOHN SANDISON, L.R.C.P., L.R.C.S.Edin., Dundallen, Gravelly Hill, near Birmingham.
- 1895 CRAIG, WILLIAM BEDFORD, M.D., *Visiting Gynæcologist to St. Luke's and St. Joseph's Hospital, Denver, and Professor of Gynæcology in the University of Denver Medical Department*, 122, East Sixteenth Avenue, Denver, Colorado, U.S.A.
- 1900 †CRAMPTON, THOMAS HOBBS, L.R.C.P.I., L.R.C.S.I., L.M., 30, Myddleton Square, E.C.
- F.F. †CRANNY, JOHN JOSEPH, A.B., M.D.Dub., F.R.C.S.I., *Surgeon to the Jervis Street Hospital, late Examiner in Midwifery, Royal College of Surgeons, Ireland*, 17, Merrion Square, Dublin.
- 1886 †CRESSWELL, PEARSON ROBERT, F.R.C.S.Edin., C.B., *Surgeon Merthyr General Hospital, &c.*, Dowlais, Merthyr Tydfil.
- 1888 \*CRICHTON, GEORGE, A.M.St. And., M.D.Edin., L.R.C.S.Edin.
- 1888 †CRISP, ERNEST HENRY, B.A.Camb., L.R.C.P., M.R.C.S., 43, Fenchurch Street, E.C.
- 1891 \*CROMIE, JOHN, L.R.C.P., L.R.C.S.Edin.
- 1891 †CROOM, Sir JOHN HALLIDAY, M.D., F.R.C.P.Edin., F.R.C.S.Edin., F.R.S.E., *President of the Royal College of Surgeons, Con- on Midwifery and the Diseases of Women at the School of sulting Gynæcologist to the Royal Infirmary, Consulting Physician to the Royal Maternity Hospital, and Lecturer the Royal Colleges, Edinburgh*, 25, Charlotte Square, Edinburgh. C. 1884-6 & 1903. V.-P. 1887-9. President, 1902.

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- L. 1887 CROUZAT, E., M.D., *Professeur de Clinique d'Accouchements à la Faculté de Médecine de Toulouse*, Toulouse, France.
- 1901 CULLEN, THOMAS, M.D., *Gynæcologist to the Johns Hopkins Hospital*, Baltimore, U.S.A.
- 1898 CUMMING, GEORGE WILLIAM HAMILTON, M.D.Durh., M.R.C.S., L.R.C.P., Annandale, Torquay, S. Devon.
- 1901 †DANIEL, PETER LEWIS, F.R.C.S., 5, Devonshire Street, Portland Place, w.
- 1896 \*DARLEY-HARTLEY, WILLIAM, L.R.C.P.Edin., M.R.C.S.Eng.
- 1895 †DAUBER, JOHN H., M.A., M.B., B.Ch.Oxon., *Assistant Physician Hospital for Women, Soho*, 29, Charles Street, Berkeley Square, w. C. 1900-1.
- F.F. †DAVIES, ELLIS THOMAS, M.D., *Hon. Surgeon Samaritan Free Hospital for Women, Liverpool*, 97, Shaw Street, Liverpool. C. 1901-3.
- 1900 †DAVIES, JOHN STANLEY, M.B., C.M.Glasg., 262, Queen's Road, New Cross.
- 1897 \*DELAMOTTE, PETER WILLIAM, M.R.C.P.Edin., M.R.C.S.E.
- L. 1887 DEWES, FREDERICK JOSEPH, L.R.C.P.Lond., M.R.C.S.E., *Surgeon-Captain Madras Army*, care of Messrs. A. Scott & Co., Rangoon, India.
- L. F.F. †DINGLE, WILLIAM ALFRED, M.D.St. And., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., *Surgeon Royal Maternity Charity*, 46, Finsbury Square, E.C. C. 1889-91. V.-P. 1892-4.
- L. 1888 DIRNER, GUSTAV, M.D., 9, Kossuth Utoxa, Buda Pesth, Hungary.
- F.F. †DIXON, WILLIAM EDWARD, L.R.C.P., F.R.C.S.Edin., M.R.C.S., Oulton Lodge, Oulton Broad, Lowestoft.
- 1891 †DODD, T. A., M.R.C.S., L.R.C.P.Edin., *Visiting Surgeon Newcastle-on-Tyne Workhouse Hospital*, 4, Eldon Square, Newcastle-on-Tyne.
- 1898 †DODSWORTH, FREDERICK CHARLES, L.R.C.P., M.R.C.S., Ingleden House, Gunnersbury.
- F.F. †DOLAN, THOMAS M., M.D.Durh., F.R.C.S.Edin., Horton House, Halifax, Yorkshire. C. 1886-8, 1892-4 & 1902-3. V.-P. 1889-91.
- 1898 †DON, WILLIAM WALTON, M.D.Glasg., 466, Edgware Road, w.
- 1895 †DONALD, ARCHIBALD, M.A., M.D.Edin., M.R.C.P.Lond., *Obstetric Physician Royal Infirmary, Manchester*, Platt Abbey, Rusholme, Manchester. C. 1897-9.
- 1897 †DONALD, HUGH COLLIGHAN, M.B., C.M.Glasg., 5, Gauze Street, Paisley.
- 1898 †DONOVAN, WILLIAM, M.D.Durh., L.R.C.P. & S.Edin., "Glandore," Erdington, Birmingham.
- L. 1889 DOUGLAS, RICHARD, M.D., Nashville, Tennessee, U.S.A.
- 1896 †DOWNES, JOSEPH LOCKHART, M.B., C.M.Glasg., 271, Romford Road, E.

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- 1898 DOYEN, E., M.D. Paris, 6, Rue Picini, Avenue du Bois de Boulogne, Paris.
- 1898 †DRAKE, A. THOMSON, M.B., R.U.I., 160, Lewisham High Road, s.e.
- L. F.F. †DRAPER, JAMES WILLIAM, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., Almondbury, Huddersfield.
- 1903 DROUGHT, ROBERT S. A., M.B., B.Ch., B.A.O., 20, Union Road, Rotherhithe, s.e.
- 1891 †DRUMMOND, JAMES, M.D., 12, Ogle Terrace, South Shields.
- L. 1885 DUDLEY, EMILIUS CLARK, A.B., M.D., *Professor of Gynæcology Chicago Medical College*, 1617, Indiana Avenue, Chicago, U.S.A.
- 1902 DUNCAN, WILLIAM, M.D., M.R.C.P., F.R.C.S., *Obstetric Physician and Lecturer on Obstetric Medicine Middlesex Hospital; Senior Physician Chelsea Hospital for Women*, 6, Harley Street, w.
- F.F. \*DUNDAS, MORDAUNT GEORGE, M.R.C.S., L.S.A.
- 1896 †DUTCH, HENRY, M.D.Brux., L.R.C.P.Lond., 8, Berkeley Street, Berkeley Square, w.
- 1891 †EASTES, THOMAS, M.D., F.R.C.S., 18, Manor Road, Folkestone.  
C. 1897-1900.
- 1890 ECCLES, F. R., M.D., *Professor of Gynæcology at the Western University*, Ellwood Place, London, Ontario, Canada.
- 1894 †EDGE, FREDERICK, M.D., B.S., B.Sc.Lond., M.R.C.P.Lond., F.R.C.S.Eng., *Surgeon to the Wolverhampton Hospital for Women, and to the Birmingham and Midland Hospital for Women*, 54, Darlington Street, Wolverhampton.  
C. 1897-9 & 1903.
- F.F. †ELDER, GEORGE, M.D., *Surgeon to the Samaritan Hospital for Women, Nottingham*, 17, Regent Street, Nottingham.  
C. 1890-2. V.-P. 1897-9.
- 1898 †ELLIOTT, FRANK PERCY, M.B., C.M.Aberd., 113, Grove Road, Walthamstow, n.e.
- 1898 †EMERSON, THOS. G., M.D., M.Ch., R.U.I., Wantage, Berks.
- 1894 EMMET, BACHE MCE., M.D., 18, East Thirtieth Street, New York, U.S.A.  
Hon. Loc. Sec.
- 1892 ENGLEMAN, FREDK., M.D., Kreuznach, Germany.
- L. 1885 ENGLEMAN, GEORGE J., M.D., 336, Beacon Street, Boston, U.S.A.
- 1890 †ENGLISH, T. JOHNSTON, M.D.Brux., 128, Fulham Road, S. Kensington, s.w.
- L. 1892 ENGSTRÖM, Professor OTTO, M.D., Helsingfors, Finland.
- 1903 EVERS, CHARLES J., M.D.Durh., M.R.C.S., South Road, Faversham, Kent.
- 1891 FEHLING, Professor, M.D., Ruprechtsauer, Allee, Strasburg.
- L. 1886 FENGER, CHRISTIAN, M.D., 269, La Salle Avenue, Chicago, Illinois, U.S.A.

## Elected

- 1894 \*FENTON, FREDERICK ENOS, F.R.C.S., M.R.C.P.Edin.
- 1896 †FENWICK, BEDFORD, M.D.Durh., M.R.C.P.Lond., *Physician to the Hospital for Women, Soho, 20, Upper Wimpole Street, w. V.-P. 1890-92. C. 1886-7 & 1902-3. Libr. 1887-92. Hon. Sec. 1888-9. Editor 1892-4.*
- 1893 \*FERGUSON, GEO. GUNNIS, M.B., C.M.Glasg.
- 1895 †FERGUSON, JAMES HAIG, M.D., F.R.C.P.E., F.R.C.S.Eng., *Lecturer on Midwifery and Diseases of Women School of Medicine of the Royal Colleges, Gynæcologist Leith Hospital. Assistant Physician Royal Maternity Hospital, Edinburgh. 25, Rutland Street, Edinburgh.*
- 1899 †FITZGERALD, EDWARD DESMOND, M.R.C.S., L.R.C.P., 5, Castle Hill Avenue, Folkestone.
- 1900 †FLEMING, ALEXANDER JOHN, M.D., M.Ch., R.U.I., 3, Arkwright Road, Hampstead, N.W.
- 1898 †FLOYD, THOMAS SARGENT, M.A., M.D.Dub., 16, Devonshire Road, Claughton, Birkenhead.
- 1898 FOGERTY, WILLIAM A., M.D., M.Ch., M.A.O., *Surgeon Limerick Hospital, 67, George Street, Limerick.*
- 1891 †FORDE, ERNEST S., L.R.C.P. & S.Edin., Dalry, Galloway.
- 1902 FRANCIS, ARTHUR EDWARD, M.R.C.S., L.R.C.P., 82, Cromwell Avenue, Highgate, N.
- 1902 FRANZ, K., M.D., *Privat-Docent and Pathologist to the University Frauenklinik, Halle a. S.*
- 1898 FRANZ, R. GRANT, M.D.Marburg and Berlin, Schwalbach, Germany.
- 1885 †FRASER, GRÆME BISDEE, M.R.C.S., L.S.A., Belvidere, Beech Road, Weston-super-Mare.
- 1885 †FULLER, LEEDHAM, M.R.C.S.Eng., L.S.A.Lond., Oatlands, Streatham Hill, S.W.
- F.F. †GAGE-BROWN, CHARLES HERBERT, M.D., C.M.Edin., 85, Cadogan Place, S.W. C. 1898-9.
- 1895 †GALLOWAY, ARTHUR W., L.R.C.P., M.R.C.S., 79, New North Road, N.
- F.F. †GARDINER, BRUCE HERBERT JOHN, M.D., L.R.C.P.Edin., M.R.C.S., 48, Barry Road, East Dulwich, S.E.
- F.F. GARDNER, WILLIAM, M.D., *Professor of Gynæcology in McGill University, 109, Union Avenue, Montreal, Canada. V.-P. 1887-9.*
- 1895 †GIFFARD, H. E., M.R.C.S., Denham House, Egham, Surrey.
- L. 1885 †GILES, PETER BROOME, M.R.C.S., L.R.C.P., Holne Chase, Bletchley, Bucks.
- 1900 †GLENN, JOHN HUGH ROBERT, M.D.Dub., F.R.C.P.I., *Gynæcologist to Mercer's Hospital, 24, Lower Bagot Street, Dublin.*

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- 1897 †GODFREY, FRANK W. A., M.B. & C.M.Edin., *Hon. Surgeon Scarborough Hospital and Dispensary*, 5, Montpellier Terrace, Scarborough.
- 1891 †GODSON, CLEMENT, M.D., M.R.C.P., *Consulting Physician to the City of London Lying-in Hospital, late Assistant Physician Accoucheur St. Bartholomew's Hospital*, 82, Brook Street, Grosvenor Square, w.  
Trustee. C. 1892-4 & 1897-9. Pres. 1895-6. V.-P. 1902-3.
- F.F. GOLDSMITH, GEORGE POCKOCK, M.D., 3, Harpur Place, Bedford.  
C. 1891-3.
- L. 1886 GORDON, SAMUEL C., M.D., 157, High Street, Portland, Maine, U.S.A.
- 1902 GOSLING, CHARLES E., M.D.Brux., M.R.C.S., The Fiveland, Moseley, Birmingham.
- 1891 GOWANS, WILLIAM, M.D.Durh., F.R.C.S.Edin., Westoe House, Westoe, South Shields.
- 1896 †GRANT, WILLIAM FRANCIS, M.D.Edin., 20, Oxford Terrace, Hyde Park, w.
- 1896 GRAY, WILLIAM, M.D., C.M.Edin., Victoria Road, West Hartlepool.
- 1891 GREEN, W. O., M.D., 709, 2nd Street, near Chestnut, Louisville, Kentucky, U.S.A.
- 1900 GREER, WILLIAM JONES, F.R.C.S.I., L.R.C.P.I., L.M., D.P.H., 2, Chepstow Road, Newport, Monmouthshire.
- F.F. †GRIFFITH, G. DE GORREQUER, L.R.C.P., M.R.C.S., *late Senior Physician to Hospital for Women and Children, Pimlico*, 34, St. George's Square, s.w., and New Indian Club, Whitehall Gardens, s.w.
- L. 1885 †GRIMSDALE, THOMAS BABINGTON, B.A., M.B.Camb., M.R.C.S., *Gynæcological Surgeon Liverpool Royal Infirmary*, 29, Rodney Street, Liverpool.  
Hon. Loc. Sec. C. 1894-6.
- 1898 †GUNTON, GEORGE ANDREW, L.R.C.P.I., L.S.A., 3, Sloane Court, S.W.
- 1895 HALL, ERNEST AMOS, M.D., C.M.Ont., L.R.C.P.Edin., 92, Government Street, Victoria, British Columbia.
- L. 1885 HALL, RUFUS B., M.D., 37, Crown Street, Walnut Hills, Cincinnati, U.S.A.
- 1898 †HANSON, ARTHUR STEPHEN, M.R.C.S., L.R.C.P., Titchfield, Fareham, Hants.
- 1897 †HARLEY, HENRY, M.D., R.U.I., 27, Victoria Road, Battersea Park, s.w.
- F.F. †HARRIES, THOMAS DAVIES, M.R.C.P.Lond., F.R.C.S.Eng., *Surgeon Aberystwith Infirmary and Cardiganshire General Hospital*, Grosvenor House, Aberystwith.
- 1898 †HARTT, CHARLES HENRY, L.R.C.P.I., L.R.C.S.I., L.M., 14, Croom's Hill, Greenwich, s.e.

## Elected

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Hon. Loc. Sec. C. 1896-8. V.-P. 1902-3.

1889 †HAWKES, A. E., M.D.Brux., L.R.C.P., L.R.C.S.Edin., 22, Abercromby Square, Liverpool.

1902 HAYES, GEORGE SULLIVAN CLIFFORD, M.R.C.S., L.R.C.P., Parnacah Purecal Lines, Bengal.

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L. 1886 HEADLEY, W. BALLS, M.A., M.D., F.R.C.P., 4, Collins Street, Melbourne, Australia. C. 1896-8.

1887 \*HEALD, BENJAMIN GREY, L.R.C.P.Edin., L.F.P.S.Glasg.

F.F. †HEBERT, PAUL ZOTIQUE, M.D., C.M.McGill, L.R.C.P.Lond., 16A, Old Cavendish Street, Cavendish Square, w. C. 1896-8.

L. 1885 HEIBERG, WILHELM, M.D., *Surgeon to the County Hospital of Copenhagen, Frederiksberg, Copenhagen*.

1898 †HELME, THOMAS ARTHUR, M.D.Edin., M.R.C.P.Lond., M.R.C.S.Eng., *Hon. Senior Assistant Surgeon Clinical Hospital for Women and Children, Manchester*, 337, Oxford Road, Manchester. C. 1903.

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1871 †HILL, J. STONELEY, M.B. & C.M.Edin., 33, Great Charlotte Street, Blackfriars Road, s.e.

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F.F. †HINE, ALFRED LEONARD, L.R.C.P.Lond., M.R.C.S., L.S.A., Eppingdale, Leytonstone Road, e. C. 1891-2.

L. 1887 HOAG, JUNIUS C., M.D., 4669, Lake Avenue, Chicago.

F.F. †HODGSON, ROBERT HUGH, M.D.Durh., M.R.C.S.Eng., 166, Peckham Rye, East Dulwich. C. 1894-7 & 1901-3. V.-P. 1898-1900.

1895 †HOLLAND, C. E., M.B., C.M.Edin., Airdrie, The Avenue, Kew Gardens, Surrey.

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- F.F. †JAMES, W. CULVER, M.D., 15, Marloes Road, Kensington, w.  
C. 1884-6.
- 1903 †JAMESON, JAMES ELLIOTT, M.B., B.Ch., B.A.O.Dub., 16, Church  
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- 1894 †JARDINE, JAMES, M.B., C.M.Edin., 3, Lichfield Gardens, Rich-  
mond, Surrey. C. 1902-3.
- 1888 †JELLETT, HENRY, M.D.Dub., F.R.C.P.I., 61, Lower Mount Street,  
Dublin. Hon. Loc. Sec. C. 1902-3.
- 1887 †JESSETT, FREDERICK BOWREMAN, F.R.C.S.Eng., *Surgeon to the  
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C. 1891-2, 1894-7 & 1901-3. V.-P. 1898-1900. Pres. 1893.
- L. 1883 JEWETT, CHARLES, M.D., 330, Clinton Avenue, Brooklyn, U.S.A.
- 1902 †JOHNSON, J. R., M.R.C.S., L.R.C.P., 7, Lancaster Place, Rich-  
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- 1897 \*JOHNSTON, G. J. WALDRON, M.D., R.U.I.
- 1886 †JOHNSTON, JOHN, M.R.C.S.Eng., 2, Rocky Hill Terrace, Maidstone.
- L. 1886 JOHNSTONE, ARTHUR W., M.D., Madisonville Road, Cincinnati,  
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- 1891 JOHNSTONE, GEORGE W., L.R.C.P., *Government Medical Officer*,  
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- 1887 JONES, C. N. DIXON, M.D., 249, East 86th Street, New York,  
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- 1899 JONES, EVAN JAMES TREVOR, M.R.C.S., L.R.C.P., Ty-mawr,  
Aberdare, S. Wales.
- 1895 †JONES, JOHN, L.R.C.P., M.R.C.S., Claremont, Newlands Park,  
Sydenham, s.e.
- 1893 †JORDAN, JOHN FURNEAUX, M.B., R.U.I., F.R.C.S.Eng., *Surgeon  
Women's Hospital, Birmingham*, 9, Newhall Street, Bir-  
mingham. C. 1899-1901.
- 1895 †KEITH, GEORGE E., M.B., C.M.Edin., 42, Charles Street, Berkeley  
Square, w. Hon. Sec. 1897-9. C. 1900-1.
- 1894 †KEITH, SKENE, M.B., C.M., F.R.C.S.Edin., 42, Charles Street,  
Berkeley Square, w. C. 1897-9. V.-P. 1900-3.
- L. 1889 KELLOGG, J. H., M.D., Battle Creek, Michigan, U.S.A.
- 1868 KELLY, HOWARD A., M.D., Univ. of Pennsylvania, *Professor of  
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- 1900 †KIDD, FREDERICK WILLIAM, M.D.Dub., *Master of Coombe Hospital, Professor of Midwifery and Gynæcology, R.C.S.I., 17, Lower Fitzwilliam Street, Dublin.* C. 1902-3.
- L. 1886 KING, ALBERT F. A., M.D., 1315, Mass. Avenue, n.w., Washington, D.C., U.S.A.
- 1901 KING, E. J., M.D. Univ. Buffalo, 93, Niagara Street, Buffalo, U.S.A.
- 1898 †KINKEAD, RICHARD JOHN, M.D., L.R.C.S.I., *Prof. of Obstetrics, Queen's College, Galway, Forster House, Galway.*
- 1839 KIRKLEY, C. A., M.D., 1105, Jefferson Street, Toledo, Ohio, U.S.A.
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- 1902 LACKIE, JAMES LAMOND, M.D., F.R.C.P.Edin., 2, Randolph Crescent, Edinburgh.
- 1898 LANDAU, L., M.D., *Professor of Gynæcology of the University of Berlin, Berlin.* V.-P., 1900-3.
- 1902 LAST, CECIL EDWARD, M.R.C.S., L.R.C.P., Blessoe House, Littlehampton.
- L. 1886†LAWRIE, JAMES MCPHERSON, M.D., *Physician to the Weymouth Sanatorium, Greenhill, Weymouth.* C. 1894-6. V.-P. 1899-1901.
- 1899 †LEA, ARNOLD WILLIAM WARRINGTON, M.D., B.S.Lond., F.R.C.S. Eng., *Assistant to the Professor of Obstetrics, Owens College, Assistant Surgeon to the Clinical Hospital for Women and Children, Manchester, 274, Oxford Road, Manchester.*
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- 1889 †LEIGH, W. W., L.R.C.P.Edin., M.R.C.S.Eng., L.S.A., Glyn Bargoed Treharris, R.S.O., South Wales.
- L. F.F. †LE PAGE, JOHN FISHER, M.D., L.R.C.P.Edin., The Poplars, Cheadle, Cheshire.
- 1901 †LERMITTE, EDWARD AUGUSTUS, M.B., B.S., &c., 96, Manor Road, Stoke Newington, N.
- F.F. \*LESLIE, WILLIAM MURRAY, M.D.Edin., C.M., F.R.S.C.E.
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- 1891 †LLOYD, H. J., L.R.C.P.Edin., L.F.P.S.Glasg., Tyncoed, Barmouth, North Wales.
- F.F. †LLOYD, SAMUEL, M.D., 60, Bloomsbury Street, Bloomsbury, w.c.
- 1902 LLOYD, THOMAS EDWARD, M.D.Bru.x., M.R.C.S., L.R.C.P., Woodstock House, Abergavenny, Monmouthshire.
- 1893 †LLOYDE, JOHN HY., L.R.C.P., L.R.C.S.Edin., 6, Harpur Place, Bedford.

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- F.F.** †**LOW, RICHARD MARSDEN PILKINGTON, M.B., C.M., L.R.C.P., L.R.C.S.Edin., L.M., 70, Philbeach Gardens, s.w.**  
C. 1896-8.
- 1901** **LOWENTHAL, LOUIS L., M.R.C.S., &c., 3135, South Park Avenue, Chicago, U.S.A.**
- 1894** **LUTAUD, AUGUSTE, M.D.Paris, *Rédacteur en Chef du Journal de Médecine de Paris ; Médecin Adjoint de l'Hôpital St. Lazare.* 47, Boulevard Haussmann, Paris.**
- F.F.** †**LYCETT, JOHN ALLAN, M.D.St. And., M.R.C.P.Edin., Consulting Gynæcologist Wolverhampton and District Hospital for Women, Gatcombe, Wolverhampton.** Hon. Loc. Sec. C. 1889-91.
- 1899** †**LYLE, ROBERT PATTON RANKEN, B.A., M.D., B.Ch.Dub., Lecturer on Midwifery and Diseases of Women and Children, Durham University College of Medicine, 20, Saville Row, Newcastle-on-Tyne.** Hon. Loc. Sec.
- F.F.** †**MACAN, ARTHUR VERNON, B.A., M.B., M.Ch., M.A.O.Dub., F.R.C.P.I., President of the Royal College of Physicians, Ireland, King's Professor of Midwifery Trinity College, Obstetric Physician Sir P. Dun's Hospital, Ex-Master of the Rotunda Hospital, Dublin, 53, Merrion Square, Dublin.**  
V.-P. 1887-8. Pres. 1889. C. 1890-2.
- L. 1885** †**MACAN, JAMESON JOHN, M.A., M.D.Camb., Cheam, Surrey.**  
C. 1895-7. V.-P. 1898-1900. Editor, 1899-1903.
- 1899** †**MCARDLE, JOHN STEPHEN, F.R.C.S.I., Surgeon to St. Vincent's Hospital, 7, Upper Merrion Street, Dublin.**
- 1898** †**MACARTNEY, RICHARD, L.R.C.P., L.R.C.S.Edin., Lisanore, Cinderford, Gloucestershire.**
- 1890** †**MACCORMAC, JOHN SIDES DAVIES, L.R.C.P. & S.Edin., L.R.C.P. & S.Glasg., Iveagh House, Belgrave, Leicester.**
- 1895** †**MACDONALD, JAMES, M.D.Edin., Bloxwich, Wallsall, Staffs.**
- 1898** †**MACDONNELL, ALEXANDER, L.R.C.S.Edin. & L.S.A., Manor Lodge, Stamford Hill, N.**
- 1902** **MCDOWELL, WILLIAM, jun., M.D., 94, Superior Street, Victoria, British Columbia.**
- 1895** **MACGREGER, ANGUS VALLANCE, M.D., C.M.Edin., Durham House, Victoria Road, West Hartlepool.**
- 1897** **MACGREGOR, PETER, F.R.C.S.Edin., Rashcliffe, Huddersfield.**
- L. 1889** **MACKAY, WILLIAM ALEXANDER, M.D., F.R.C.S.Edin., Huelva, Spain.**
- L. 1888** †**MACKINTOSH, G. D., L.R.C.P.I., L.M.Edin., Fairford House, Lower Kennington Lane, s.e.**
- 1898** †**MCMANUS, LEONARD STRONG, M.D., Westwood House, St. John's Hill, s.w.**
- 1892** **MACMURTRY, L. S., M.D., 1912, Sixth Street, Louisville, Kentucky, U.S.A.**

## Elected

- F.F. †MACNAUGHTON-JONES, H., M.D., M.Ch., M.A.O., R.U.I., F.R.C.S.I. and Edin., *late Examiner in Midwifery Royal University, Ireland, and Professor of Midwifery Queen's College, Cork*, 131, Harley Street, w.  
C. 1890-2 & 1900-2. V.-P. 1895-7 & 1903. P. 1898-9.
- 1897 †MACNAUGHTON-JONES, H. M., M.B., B.Ch., R.U.I., L.R.C.P., M.R.C.S., 12, Sandwell Mansions, West End Lane, N.W.  
Editor, 1900-2.
- 1894 \*MADDIN, JOHN WALSEY, jun., M.D.
- 1888 MANTON, WALTER PORTER, M.D., 32, Adams Avenue, w., Detroit, Mich., U.S.A.
- 1895 \*MARTIN, CHARLES, M.B., C.M. Edin.
- 1891 †MARTIN, CHRISTOPHER, M.B. Edin., C.M., F.R.C.S. Eng., *Surgeon Birmingham and Midland Hospital for Women*, Cleveland House, George Road, Edgbaston, Birmingham.  
Hon. Loc. Sec. C. 1897-9. V.-P. 1903.
- 1896 MATTICE, RICHARD ISA, M.D. McGill, L.R.C.P. Lond., Omaha, Nebraska, U.S.A.
- 1896 †MAYBURY, LYSANDER, M.D., M.Ch., R.U.I., M.R.C.S. Eng., 9, Hampshire Terrace, Southsea.
- 1891 †MEARNS, WILLIAM, M.A., M.D., *Physician Children's Hospital, Gateshead-on-Tyne*, 22, Bewick Road, Gateshead-on-Tyne.
- 1891 MEEK, H., M.D., 331, Queen's Avenue, London, Ontario, Canada.
- 1887 MENDES DE LEON, M.A., M.D., Sarphati Straat, 1H, Amsterdam.  
C. 1892.
- L. 1886 MERRIMAN, HENRY P., M.D., 2239, Michigan Avenue, Chicago, U.S.A.
- 1896 †METCALFE, JAMES, M.D. Brux., L.R.C.P., L.R.C.S. Edin., *Surgeon to St. Catherine's Home for Cancer, Bradford*, 8, Heaton Grove, Bradford, Yorks.
- 1891 †MICHIE, H., M.B. Aberd., C.M., *Surgeon to the Samaritan Hospital*, 27, Regent Street, Nottingham. C. 1894-6.
- 1895 †MILLER, FREDK. R., M.D. Brux., L.R.C.P. Lond., 19, Harley Street, w.
- L. 1886 \*MILLER, DE LASKIE, M.D., *Professor of Obstetrics Rush Medical College*.
- 1896 †MINCHIN, P. DUNDAS, L.R.C.P., L.R.C.S. Edin., Oldcroft, Godalming, Surrey.
- 1892 †MOLSON, JOHN CAVENDISH, L.R.C.P., 10, Walsingham Terrace, West Brighton.
- 1902 MONDY, SAMUEL LEE CRAIGIE, M.R.C.S., L.R.C.P., c/o Dr. Bond, Westwood, Poole, Dorset.
- 1896 MORGAN, THOMAS HOWARD, M.D., F.R.C.S. Edin., Gympie, Queensland, Australia.

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C. 1894-6.
- 1894 MORLAND, CHARLES HENRY DUNCAN, M.B., B.S.Durh., F.R.C.S.,  
Swatow, China.
- 1898 †MORRIS, RICHARD JOHN, M.D.Durh., M.R.C.S., L.R.C.P., L.S.A.,  
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- F.F. †MORTON, THOMAS, M.D.Lond., M.R.C.S., L.S.A., *Ex-President  
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N.W. C. 1889-90 & 1899-1901.
- 1898 †MOSSE, HERBERT RYDING, M.D., M.R.C.S.Eng., Hobart House,  
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C. 1884-6. Hon. Sec. 1887-8. V.-P. 1889-91 & 1903.  
Libr. 1892. Treas. 1893-1900. Pres. 1901.
- 1902 MOWLL, RICHARD ROTHWELL, M.B., B.S.Lond., Beresford, Hook  
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- 1896 MURRAY, CHAS. F. K., M.D., R.U.I., F.R.C.S., Kenilworth, Cape  
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- 1885 †MURRAY, ROBERT MILNE, M.A.St. And., M.B.Edin., F.R.C.P.  
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Physician for Diseases of Women to the Western Dispensary,  
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- 1891 †MURRAY, WILLIAM, M.D., F.R.C.P., *Consulting Physician New-  
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C. 1892. Hon. Sec. 1893-4. Editor 1894-6. V.-P. 1895-7.
- 1889 †NAUMANN, J. C. FRANCIS, M.D.Brux., L.R.C.P.Lond., M.R.C.S.  
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- 1894 †NEATBY, EDWIN A., M.D.Brux., L.R.C.P.Lond., 19, Upper  
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1898 †O'CONNOR, WILLIAM MOYLE, M.A., M.D.Dub., Lyndhurst, Cargate, Aldershot.

1885 O'DONNELL, THOMAS JOSEPH, L.R.C.P.I., L.M., L.R.C.S.I., *Major R.A.M.C.*, Champion Reef, Mysore, India.

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1894 †OLIVER, JAMES, M.D., M.R.C.P.Lond., F.R.S.Edin., *Physician to the Hospital for Women, Soho Square, W.*, 18, Gordon Square, w.c. C. 1896-98. V.-P. 1900-2.

1891 †OLIVER, THOS., M.A., M.D., F.R.C.P., *Professor of Physiology University of Durham, Physician Newcastle-on-Tyne Infirmary*, 7, Ellison Place, Newcastle-on-Tyne. C. 1892-4.

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L. 1888 PARKINSON, J. TAYLOR, M.D., Brook View, Crystal Brook, South Australia.

1898 †PARSONS, JOHN INGLIS, M.D., M.R.C.P., *Physician to the Chelsea Hospital for Women*, 3, Queen Street, Mayfair, w. C. 1901-2.

1903 PATERSON, CHARLES EDWARD, M.D., C.M.Edin., Stirling Lodge, Farnborough, Hants.

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- 1899 PECK, FRANCIS SAMUEL, M.R.C.S., L.R.C.P., *Lieut.-Col. Indian Medical Service, Professor of Midwifery and Obstetric Physician at Calcutta Medical College, 6, Harrington Street, Calcutta.*
- 1891 †PHILIPSON, Professor Sir G. H., M.A., M.D.Camb., D.C.L., F.R.C.P., *Professor of Medicine University of Durham, Senior Physician Newcastle-on-Tyne Infirmary, 7, Eldon Square, Newcastle-on-Tyne.*
- 1902 PHILLIPS, JAMES, F.R.C.S.Edin., M.R.C.S., L.R.C.P., 2, Duckworth Grove, Bradford, Yorks.
- L. F.F. PINARD, ADOLPHE, M.D., *Professeur à la Faculté, Accoucheur de Lariboisière, 11, Rocqueline, Paris.* V.-P. 1900-1.
- L. 1885 POLK, WILLIAM, M., M.D., *Ex-President New York Obstetrical Society, &c., &c., 7, East Thirty-Sixth Street, New York, U.S.A.*
- 1886 †POPE, HARRY CAMPBELL, M.D.Lond., F.R.C.S., 6, Ashchurch Grove, Goldhawk Road, Shepherd's Bush, w. C. 1890-2.
- 1891 †POULTER, ARTHUR REGINALD, M.R.C.S., L.R.C.P., 4, Gordon Mansions, Gower Street, w.c.
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- L. F.F. †PUREFOY, RICHARD DANCER, M.D., T.C.D., F.R.C.S.I., *Obstetric Surgeon Adelaide Hospital, Master of the Rotunda Hospital, 20, Merrion Square, Dublin.* C. 1884-6. V.-P. 1899-1901.
- 1895 †PUTSEY, WILLIAM H., M.D.Durh., M.R.C.S., *Fleet-Surgeon (retired) R.N., Medical Registrar South London Hospital for Women, 195, Portsdown Road, Maida Vale, w.*
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- 1894 †RAMSAY, FRANK WINSON, M.D., B.S.Durh., F.R.C.S.Edin., *Jesmond Dene, Bournemouth.* C. 1900-2.
- L. F.F. RASCH, ADOLPHUS A. F., M.D., M.R.C.P., *late Physician for Diseases of Women and Children to the German Hospital, London, Blumenstrasse, 5, Halle a Saale, Germany.* C. 1891-3. V.-P. 1895-6.
- F.F. †RAWLINGS, JOHN ADAMS, M.R.C.P.Edin., M.R.C.S.Eng., *Physician to the Swansea Hospital, Preswylfa, Swansea.* C. 1889-90.
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- 1891 †SCOTT, EDWARD IRWIN, M.D.St. And., 69, Church Road, West Brighton.
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- 1901 SHEARER, ALFRED, M.B., Ch.B., c/o Dr. Purchas, Newtown, N. Wales.
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- 1898 \*SIMPSON, JOHN POLLOCK, M.D.
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- F.F. †SLIMON, WILLIAM, M.D., F.F.P.S.Glasg., 26, New Cavendish Street, w.  
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- L. 1887 †SMART, DAVID, M.B., B.Sc.Edin., 74, Hartington Road, Liverpool.
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- 1891 †SMITH, JAMES WILKIE, M.D., Balgonie House, Ryton-on-Tyne, Durham.
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- F.F. †SMYLY, WILLIAM JOSIAH, M.D., T.C.D., F.R.C.P.I., F.R.C.S.I., *late Master of the Rotunda Hospital, Examiner in Midwifery, R.C.P.I., Dublin, 58, Merrion Square, Dublin.* C. 1888-90 and 1901-3. V.-P. 1892-4. Pres. 1900.
- 1895 †SMYTH, ALEXANDER CARSON, M.B., C.M.Edin., Lochiel, 16, Craven Park, Willesden, N.W.
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- 1896 †SNOW, HERBERT, M.D.Lond., M.R.C.S. &c., *Senior Surgeon Cancer Hospital, Brompton, 6, Gloucester Place, Portman Square, W.* C. 1902-3.
- F.F. †SPANTON, W. DUNNETT, F.R.C.S.Eng., J.P., *Surgeon to the North Staffordshire Infirmary, Chatterley House, Hanley, Staffordshire.* C. 1887-9 & 1901-3. V.-P. 1890-92.
- 1898 SPEARING, ANDREW, L.F.P.S.Glasg., 242, Liverpool Road, Patricroft, Lancs.
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- 1897 \*STEVENSON, JAMES, M.D.Glasg.
- 1899 STEVENSON, WILLIAM JOHN, M.D., C.M., M.C.P. & S.Toronto, 391, Dundas Street, London, Canada.
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- L. 1888 STONE, ISAAC S., M.D., 1618, Rhodes Island Avenue, N.W., Washington, D.C., U.S.A.

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- L. F.F. †TAYLER, WILLIAM HENRY, M.D.St. And., M.R.C.S.Eng., Upper Ensing House, Chilham, Kent.
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- 1902 TAYLOR, W. MACRAE, M.D., F.R.C.S.Edin., 2, Randolph Place, Edinburgh.
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- 1898 †THOMAS, JOHN LYNN, F.R.C.S.Eng., 21, Windsor Place, Cardiff.
- 1885 †THOMSON, DAVID, M.D., Stourfield Park Sanatorium, Bourne-  
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- 1893 †THOMSON, GEORGE, M.B., C.M.Glasg., 72, The Avenue, Ealing, W.
- 1899 †THORNHILL, WILLIAM HENRY, M.D., M.Ch., R.U.I., *Lieut.-Col. I.M.S.*, 85, Pimlico Road, S.W.
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C. 1894-6 & 1900. V.-P. 1897-9. Treas. 1901-3.
- 1895 TREUB, HECTOR, M.D., *Professor of Obstetrics and Gynæcology University of Amsterdam, Vondelstraat, 83, Amsterdam.*  
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- L. 1885 VAN DER VEER, ALBERT, M.D., 28, Eagle Street, Albany, New York, U.S.A.

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- 1895 †VAUGHAN-JACKSON, HERBERT FRANCIS, L.R.C.P., M.R.C.S.,  
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- L. 1888 WALKER, HOLFORD, M.D., 56, Isabella Street, Toronto, Ontario,  
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- 1895 WALTON, PAUL, M.D., *Chirurgien-adjoint des Hôpitaux de Gand,*  
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- 1897 †WHITEHEAD, HENRY EDWARD, M.R.C.S., L.R.C.P., 475, Cale-  
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- L. 1885 WYLIE, WALKER GILL, M.D., 28, West Fortieth Street, New  
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*BRITISH GYNÆCOLOGICAL SOCIETY.*

THURSDAY, FEBRUARY 13, 1902.

J. HALLIDAY CROOM, M.D., F.R.S.E., PRESIDENT,  
IN THE CHAIR.

SPECIMENS.

MODIFIED UTERINE DILATORS.

DR. F. WINSON RAMSAY said it would hardly be denied that dilatation of the uterus and curettage, even though performed under the most favourable circumstances, were sometimes followed by symptoms more or less serious, such as septic trouble, with various degrees of salpingitis. This, indeed, has occurred in his own practice, and on occasions when he felt sure that no septic material had been introduced from without. He had therefore been led to think that some cause other than the curetting might be to blame, and to consider that the dilator employed had been solid, and like those in ordinary use, when forced through a tight cervical canal had acted like a piston and pushed any septic material there might be therein on before it into the uterus. This supposition, if correct, would account for the unhappy results that sometimes followed dilatation, and he had therefore endeavoured to do away with the dangerous pressure of the piston by substituting an instrument that was open from end

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to end, instead of solid, and had had a set of such instruments made for him by Messrs. Down Bros., which he now exhibited to the Society. He had not yet had to dilate the uterus sufficiently often with them to enable him to offer any record of the results of their use, but might say that, since employing them, he had had no trouble with regard to the after-effects of dilatation and curettage and had been gratified by finding them very much easier to introduce into the uterus than any solid dilators.

There were other points in connection with this form of dilator, apart from the most important one that it was hollow. First of all there was a slight depression corresponding to a uterus of normal length, and having first introduced a smaller sized dilator to determine the exact measurement of the uterus in any individual case, one could then employ any desirable force more safely than with other dilators; there was also a ridge on the posterior surface of the instrument which came very naturally between the fingers, and prevented the dilator from rotating in the hand, and kept one aware of its exact position. The numbers of the dilators were printed in large type so that one could easily see what size one was using. He would be glad of the opinion of the Fellows of the Society as to the extent to which the dilator employed might be responsible for subsequent trouble.

Dr. MACNAUGHTON-JONES said that some sixteen years ago he had had graduated metal bougies made for dilating the cervix, when, so far as he knew, none of the kind were in use. They were hollow and light, had double bulbous ends, and being marked in millimetres one could always tell which dilator one was using and its exact size. Lately he had employed dilators of Leiter's, which were made of vulcanite, and were admirable for rapid dilatation, especially if the way were prepared by the previous insertion of an antiseptic tent.

Dr. HEYWOOD SMITH doubted whether a hollow dilator had any advantage over a solid one; the advantage to Dr. Ramsay might be a personal one, namely, that he preferred one lighter in his hand. In his own opinion the hollow dilator would act as a sort of curette as it passed up and get

full of shreds of mucous membrane and would be difficult to clean, and would be very liable to be septic instead of aseptic. He did not see how the fact of the instrument being hollow could render it any less stiff and hard for introduction, for notwithstanding its being hollow it had to be sufficiently rigid.

Dr. WINSON RAMSAY, in reply, said that Dr. Heywood Smith had not quite grasped his point. It was not the fact of the instrument being hollow but the fact that it was a hollow tube that gave the advantage, for when one was introducing an ordinary dilator into the uterus one was in reality forcing whatever might be in front of it into the uterus and perhaps even into the Fallopian tube. But if the instrument was open from end to end there was no atmospheric pressure to resist its introduction, and anything that was in the cervix could pass down through it. They would understand his meaning better if they compared the effect of a solid piston being forced into a closed pipe with that of a pierced one. After using the instruments shown he had been surprised at the greater amount of force required to introduce solid ones into the uterus. The instruments certainly were a little trouble to clean should anything happen to be left attached to the hollow inside, but as, before using, they were boiled for five minutes in accordance with ordinary surgical rules, not much harm could happen.

SUBMUCOUS AND INTRALIGAMENTARY MYOMATA REMOVED BY ABDOMINAL HYSTERECTOMY. By ROBERT O'CALLAGHAN, F.R.C.S.I., Surgeon and Gynæcologist to the French Hospital in London.

This specimen was removed from a woman, aged 48, and the most interesting point about the case was that for four years previously the patient had been bleeding continuously and had never been examined by a medical man until she came to the Hospital. He tried in the first instance to remove the submucous myoma *per vaginam*, but she had a narrow, small vagina and it was impossible to get the

uterus down owing to the intraligamentary myoma; he had therefore to operate by the abdomen. The patient made a good recovery.

#### PANHISTERECTOMY FOR CERVICAL CANCER.

Mr. O'Callaghan also showed a uterus removed by complete abdominal hysterectomy for cancer of the cervix. The patient was 34 years old, and the diagnosis really tended to be more of a simple fibrosis with chronic endometritis. The discharge had lasted for a year, and as he felt certain that the cervix was in a malignant condition he removed it from the vagina very high up. He sent a specimen to the Clinical Research Association and Mr. J. H. Targett reported it to be an epithelioma of the uterus. The uterus was removed through the abdomen because the patient had on the left side a large cystic ovary, and also old salpingitis, and both ovaries were adherent. He performed a panhysterectomy, going right into the vagina and taking away the ovaries and appendages on both sides as in the previous case.

Mr. F. BOWREMAN JESSETT failed to see why abdominal section was made for the second case, because it was not a difficult thing at all to remove cystic ovaries through the vagina, and in several cases of vaginal hysterectomy which he had performed he had removed ovarian cysts at the same time. As one wished to be as conservative as possible in cases of hysterectomy he could not see why it was necessary to do an abdominal section for so small a uterus as the specimen shown, especially as they all knew that the shock of a vaginal hysterectomy to the patient was very much less than that of an abdominal one.

Mr. O'CALLAGHAN, in reply, said he thought he had mentioned there was a large cystic ovary on the left side and old symptoms of salpingitis with adhesions, and it was quite impossible to bring the uterus out *per vaginam*, as he discovered when removing the cervix; and he thought the correct surgical procedure under the circumstances was to do an abdominal section. He did not believe anyone could



have got the uterus down. Speaking from his experience of these cases he believed in doing all that was possible through the vagina, but unless the uterus was movable enough to be dragged down into the vagina, one should not adopt this route. The more one saw of these cases, the more completely one realised the necessity for a clearer view of the surgical condition, which could only be obtained by the abdominal route.

Dr. H. MACNAUGHTON-JONES showed an instrument for rapid dilatation of the cervix uteri in cases of eclampsia and contracted pelvis, devised by Professor Bossi of Genoa, illustrations of which appeared on p. 337 of the February number of this Journal. He thought it might be of interest to the Fellows to see this instrument, which was comparatively new. It was unnecessary for him to go into the mechanism of the instrument, the beautiful way in which it worked was at once apparent. He had seen it used by Professor Leopold at Dresden, in a case of extremely contracted pelvis, with a view to craniotomy (Professor Leopold had to eventually perform cephalotripsy), and the dilatation of the cervical canal, as in this particular case, was done in about twenty minutes, which was the average time which it took to dilate the canal up to eight or nine centimetres. It acted most perfectly in that case and in other similar ones in which Professor Leopold had used it. Dr. Macnaughton-Jones had learnt that Bossi's dilator was being adopted elsewhere on the Continent, and many cases had been reported of its successful application in eclampsia, contracted pelvis, and other difficult cases of dilatation, and in many instances Simpson's forceps had been applied with perfect success within twenty minutes of dilatation. There was a scale attached to the dilator with an ordinary pointer which indicated the exact separation of its branches. The instrument was inserted into the canal, closed, the cervix dilated up to a certain point and then, still proceeding slowly, the dilatation was gradually increased until it reached the fullest extent. He wished to add he had not yet used Bossi's dilator himself.

He had written to Professor Bossi suggesting that the instrument might serve for dilatation of the cervix in cases of inversion.

Dr. Macnaughton-Jones also exhibited the clamp used by Professor Zweifel for the broad ligament in vaginal and abdominal hysterectomy. The clamp was a substitute for that of Doyen. As had been calculated with mathematical exactness, the force exerted by the blades was three times that used at the handles.

Dr. H. Macnaughton-Jones also showed a stained section of an early pregnancy in a carcinomatous uterus from a case which had been under the care of Professor E. Bumm of Halle. The uterus, in a carcinomatous condition, was in the third month of pregnancy, and the sac, the ruptured amnion, and the decidua were easily made out. The section was the only one of its kind he had ever seen. When held up to the light it was perfectly transparent and one could readily see the fibres of the uterus. The uterus had been hardened with picric acid and alcohol and then impregnated with celloidin, and the section cut with a large microtome and stained with carmine.

He ventured to put on the table some very interesting photographs which he took last year at Prague from preparations of cases occurring in Professor Säger's clinic. One was a specimen of (interstitial) tubal gestation in a myomatous uterus; the orifice of the tube, and the foetus discharged into the uterus, were both evident. Another was an adnexal tumour which he believed to be unique. It was a double pyosalpinx, one side of which was divided into loculi and was doubled down by the side of the uterus until it reached the external os. The section of uterus when hardened included the pyosalpinx, and no distinction could be made between the wall of the uterus and that of the pyosalpinx. He confessed to being completely puzzled when he first examined the specimen. Another specimen would, he thought, be of special interest to the President, who had himself published remarkable cases of the kind. It was a photograph of an elephantiasis of the right labium, the size

of a foetal head ; after operation the woman was completely cured. There was also a very perfect photograph of the most extensive carcinoma of the uterus and the adnexa, removed by vaginal panhysterectomy ; there was recovery for the time being, but he had not been able to obtain the complete history of the case ; also an extremely interesting specimen of myoma with pregnancy ; and one of deciduoma malignum. Notes of these cases and reproductions of the photographs appeared in the February number of our Journal.

Mr. BOWREMAN JESSETT said the clamp struck him at first appearance as being heavier and stronger than was necessary for the purpose required, and the weight of it might injure the outer part of the broad ligament by dragging on it. They were much indebted to Dr. Macnaughton-Jones for the opportunity of inspecting Professor Zweifel's instrument.

Dr. HEYWOOD SMITH said he had been in the habit of using pressure forceps several times, which were in his opinion of considerable advantage. With regard to this instrument of Zweifel's it seemed to him easier of application and not nearly so heavy as Doyen's, and the fact of it being longer made it easier to pass through the vagina at the broad ligament than his ; Doyen's was much thicker, not so long and really very difficult to manipulate, whereas on the contrary Zweifel's seemed most easy to manipulate, but with Doyen's instrument it was sometimes a difficult matter to get the necessary amount of pressure. Zweifel's instrument would be an immense help for vaginal hysterectomy, and it recommended itself very highly for seizing the uterus. He thought the Society were greatly indebted to Dr. Macnaughton-Jones for bringing it to their notice.

In regard to Mr. Jessett's remarks, the amount of force required was nothing like that necessary for Doyen's clamp, which was now so widely employed, and of which indeed this instrument was only a modification. One could not get the same degree of pressure with a light instrument, nor unless one had a proper amount of leverage.

Dr. MACNAUGHTON-JONES, in reply, said that he had

seen three vaginal and one abdominal hysterectomies done with this pressure clamp. It was, provided it was used as he had seen Professor Zweifel use it, a perfect hæmostatic clamp. He had seen the uterus removed from the vagina practically without any hæmorrhage, after being applied first on one side of the uterus and then on the other. He had not yet tried it himself, but was simply showing it as a modern clamp devised and used by Zweifel.

The PRESIDENT (Dr. J. Halliday Croom), after thanking Dr. Macnaughton-Jones for the beautiful specimens he had shown to the Society, especially for the one with cancer of the uterus and adnexa, delivered his

#### INAUGURAL ADDRESS.

GENTLEMEN,—It is my great pleasure and privilege in assuming the prominent position in which you have been good enough to place me this evening, to thank you most cordially for the honour you have done me. I accept this position not on any personal merit whatever, but purely and solely because in selecting me you wish to do honour to the School to which I have the privilege to belong. Nearly all the members in the gynæcological department of that School are Fellows of the Society, and in their name and my own, I offer you my most cordial thanks for honouring my School through my humble self. I think I may safely say that the Edinburgh School of Medicine, in the person of Sir James Simpson, was, if not the founder, at least the pioneer in gynæcology. When I think that the Chair which I now occupy was adorned by his successor, my friend and master, Professor Simpson, I feel that you have called me to a very honourable position indeed. Nor is my burden of responsibility lightened when I think of the many other distinguished men who have presided over this Society, from its

foundation till now, except it be by the thought of the kind indulgence which I feel sure you will extend to me, and on which I now cast myself. It will be my constant and utmost endeavour to do my best, if I cannot enhance, at least not to sully the fair reputation of this Society—for I think no one will question for a moment the admirable work which this Society has accomplished from its inception till now. It is the only Society, so far as I know, that has devoted itself entirely and purely to gynæcological work, and it has been rich in ample and useful material. The discussions have been uniformly interesting and instructive, and no journal I know of contains a more complete synopsis of gynæcological work generally than does the JOURNAL OF THE BRITISH GYNÆCOLOGICAL SOCIETY.

Since the early days of last century, gentlemen, there has been magnificent progress in the sister art of obstetrics; but, if you look back, it will be apparent to you that all the operations performed, nay more, the very instruments themselves used in performing them, were all foreshadowed ere the last century dawned. With the revolving years, of course, there have been mighty improvements; improvements in technique, in operation, and in the instruments. But yet, great though these improvements have been, no very original operation, no absolutely original instruments, have been devised as far as obstetrics is concerned. The forceps have been modified, altered, improved, beyond a doubt. The scope of their use as a life-saving instrument has been enormously increased; but yet the forceps is two centuries old at least. The operation of embryulcia has been improved in various ways, but the operation of embryulcia is as old as the times of Hippocrates. The operation of turning is as old as Ambrose Paré, and the induction of premature labour was a recognised operation before last century began. The operation of symphysiotomy as originally suggested by Leverin Pineau in 1575, or as modified by Segault and Le Roy in 1758, was an operation which at that time was with justice condemned, but, as recently re-introduced, it has, in all probability, an unquestionable future before it. The

American operation of gastro-elytrotomy is an improvement upon an operation which was introduced by Jorg in the beginning of the century. Though these operations in more or less crude forms were practised before the last century began, it is needless to point out to you the great improvements in all these operations. Axis traction forceps render delivery possible with almost scientific accuracy. A closer acquaintance with the mechanism of labour and an early recognition of pelvic deformities has made it possible for the practitioner now to avoid a sacrificial operation by the induction of premature labour, or the performance of Cæsarian section, and to recognise the necessity of these operations and to undertake their performance while the patient is yet unexhausted and her tissues uninterfered with, and not to wait, as formerly, till the patient is exhausted by futile attempts to deliver in some other way. Cæsarian section, thanks entirely to the work of the gynæcologist, has made enormous advances. It is now possible to deliver a woman with extreme pelvic deformity by this method, or its various modifications, with a very small mortality indeed; whereas at the beginning of the century the mortality could not be much less than 90 per cent.

Perhaps the greatest of all improvements is not in operative obstetrics, though that is great enough, but rather in prevention. One is struck with the enormous advance of preventive medicine generally in all directions; the prevention of smallpox, typhoid, diphtheria, and so forth. But preventive medicine has advanced in obstetrics as well. At the beginning of the century puerperal fever was the scourge of our lying-in hospitals. Now the death rate has been reduced in properly conducted hospitals, so far as puerperal septic fever is concerned, to practically *nil*. It is true that in private practice it seems to go on unabated. Dr. Cullingworth has drawn up statistics pointing out this very significant fact.

To what are all these advances due? What has made those advances possible? In the first place, anæsthesia has made it possible to perform the operations to which I have

had occasion to refer with greater care and skill, and has helped materially to make Cæsarian section the success it is. And the other potent factor in rendering these operations safe, and in reducing mortality, is the almost universal use of antiseptics in hospitals and in private practice.

All the operations to which I have referred were practised at the dawn of last century, and now we enter on a fresh cycle of time, fully equipped to meet and successfully cope with any obstetrical complication that can occur. Beyond instrumental interference we are now in a position to deal with hæmorrhages on a more scientific basis than ever; and the scourge of septicæmia, which in the beginning of last century sheltered itself under the name of puerperal fever, though, alas! still prevalent, does not inspire us with horror. We recognise the source of infection, and with the advances of preventive medicine we can to a very great extent, in hospitals at all events, prevent it being the scourge it once was. A puerperal death now from septicæmia is one that we must put down to some neglect somewhere. It is not an accident, nor is it a specific fever, and we must regard septicæmia occurring in child-bed just as we regard pus in a wound as being altogether preventable.

Obstetrics must always play an important part in the life of every practitioner. It is absolutely essential that every general practitioner should be acquainted with all the details of the work, and it is something to be able to say nowadays that midwifery has so far advanced that, save with one solitary exception, every complication can be safely and successfully dealt with. To every rule there is the inevitable exception. In this case there is one likewise, for we have still left to us one terrible complication of pregnancy, parturition and the lying-in period, namely eclampsia. There one can lay down no very definite lines of treatment, and can hardly ever anticipate with anything like certainty a successful issue. And it is not because this complication has not received most careful study, but because it is shrouded with so many difficulties, that hitherto a uniformly successful management, or a comparatively uniform management, has

not yet been attained. And so it comes about "with the process of the silent years" that midwifery can now be taught as an accurate science and art. But the process of evolution has been very slow.

But, gentlemen, if we come to look at the sister subject of gynæcology, its history and development are very different. Gynæcology is, comparatively speaking, but a recent development, and yet, in a charming book published just lately by Dr. Mackay, he gives us at first what seems to be rather a solecism, namely, a "History of Ancient Gynæcology." Considering it from the earliest developments, he has placed before us a very interesting and exhaustive account of ancient gynæcology. Beginning with the "Papyrus Ebers," the oldest medical work extant of Egyptian medicine, he has gone through the works of the Hindoo, the Greek, and the Roman writers, down to the days of Paulus Ægineta. The anatomy of the pelvic organs was then known in a very crude fashion, and their physiology is summed up in the terms, "the uterus is called the sleeping-chamber, the cervix uteri the porch, the ovaries the store-room, the vagina the outer house, the hymen the virginity, the labia majora the hinges, the labia minora the doors, and the clitoris the key." Physical examination of these organs also was not unknown in a rude manner. There were specula, and even sounds. Even pessaries were known in these early days. They consisted sometimes of balls of wool and pieces of pomegranate. Surgical interference in ancient times was seldom had recourse to. From the most ancient times onwards, however, the treatment of the uterus and its adnexa was mainly by means of medications of various kinds. It is true in some of the Hindoo works abdominal section was described as being practised for intestinal obstruction; the Alexandrian surgeons operated on the liver, and Cæsarian sections were successfully undertaken by the Romans and Jews. Yet for all practical purposes gynæcology until thirty years ago has remained a subject whose advance has been slow and uncertain. While it remained in the hands of



the physicians it made exceedingly small progress, and it is really only since the development of abdominal surgery that gynæcology has made any serious progress. It has, gentlemen, for ever passed away from off the shoals and quicksands of uncertain medicine into the sure waters of surgery, and it is to be trusted that it will ever remain there. Perhaps, like every comparatively recent development, it may have passed too rapidly and too suddenly into the hands of the surgeon, and probably on that account it may have suffered at first from the *nimia diligentia* of the surgeon; but there can be no question whatever that some of the most brilliant results in surgery have fallen to the lot of those who practise gynæcology. While obstetrics has advanced slowly and surely, gynæcology has leaped at once almost into the fore-front of our profession. In every essential point it has become an absolutely integral part of surgery, and nothing is more striking than that a branch of medicine which in my lifetime has been purely in the hands of the physician, has drifted entirely away into those of the surgeon. In our own hospital the appointment which has been known as the appointment of Physician for the Diseases of Women has been cancelled, and now he who would aspire to treat such diseases in the hospital, must assume the title of gynæcologist, and *ipso facto* be a surgeon. In Paris it has gone still further, and now gynæcological operations, no matter what their nature may be, are in the hands of those who practise general surgery. Now, before going further, it must be apparent that the teaching of the two subjects, obstetrics and gynæcology, must be in some relation to one another, because although it is unnecessary that the obstetrician should operate, it is necessary that the operating surgeon should have some knowledge of the diagnosis of pregnancy, and a lack of this has given rise to more mistakes than one cares to refer to.

Obstetrics must ever form an integral part of the instruction for students, because it must always remain an important part of the work of every general practitioner. It is a totally

different thing with gynæcology. Gynæcology has become a specialist's work, pure and simple, just as much as the eye, or the ear, or the throat, and although every general practitioner must know and of necessity understand how to treat conjunctivitis, or an aural catarrh, or a relaxed throat, he is not expected to be able to perform iridectomy, or do a mastoid, or operate upon the throat. In the same way a general practitioner must know a little of gynæcology, but the great bulk of it, the major operations, the minor plastic operations, must and ought properly to be in the hands of a specialist. Therefore I believe that if gynæcology is to be taught properly it must be taught as a special subject, not as a branch of clinical medicine or surgery at all, but entirely in a special department, as eyes, or ears, or throat, or anything else. Until this is the case, satisfactory teaching will never be accomplished. To say that a student can get even a smattering of gynæcology by coming once a fortnight to a clinique, whether that clinique be limited or unlimited, is to say a great deal too much. The teaching of gynæcology in a general hospital as part of a general curriculum, and as a necessary part of clinical medicine or surgery is contemptible. To teach it even in the simplest way a man ought to have a daily course of instruction for three months. Even then the information will be superficial.

But, gentlemen, I must not trespass on your patience by going any further into the question of how our subjects should be best taught, though, as you may readily understand, it is to me a matter of extreme interest, and one which I earnestly trust will soon receive the attention it deserves from those upon whom falls the responsibility of arranging this course of study for the future generations of medical students.

I pass now to a brief consideration of some operative procedures.

What used to be a vexed question, viz., the removal of the ovaries for inflammatory disease, we must now regard as having assumed a definite position, and we note with satisfaction that the indiscriminate removal of the ovaries for

all sorts of inflammatory conditions has fortunately ceased. This is only rational, for we must ever bear in our minds that in dealing with diseases of the reproductive system in women, we are dealing with organs which themselves perform a function and go through a course of changes which are unknown in any other organ in the body. Menstruation, as you know very well, is a function which has no counterpart in human economy. The relation between rest and pain is one of the best recognised axioms in surgery. To rest an organ is to relieve it. One of the greatest difficulties in dealing with diseases of the heart is that the organ is never at rest. One of the difficulties in dealing with the bladder is that it is never at rest; and so on with the stomach, and various other organs. But, apart altogether from the total unrest of these organs, we have superadded in the female reproductive system not only a constant cycle of changes, but also an entire renewal of the lining membrane of the uterus every month. Whether we believe in the theory of Sir John Williams that the whole of the membrane is shed off, or in Kundrab Engelmann's that the whole of the mucosa is shed off, or Moricke's theory that none is shed off at all, the fact remains that a very profound and marked change takes place in this membrane monthly. And if we recollect further the changes in the Fallopian tubes, and the remarkable changes in ovulation, we must realise that the line of demarcation between physiology and pathology is very dimly marked. Let the following be accepted as a fair representation of what occurs in menstruation, namely, that the mucous membrane becomes swollen, puckered, thrown into folds and roughened; that the orifices of the uterine follicles, before hardly discernible, are easily seen with the naked eye; that the deeply injected capillaries are seen running in lozenge-shaped loops round the follicular openings; that the swelling of the mucosa affects all its elements; that there is a proliferation of the epithelial cells on the free expanding surfaces, as well as of the lining of the follicles; and that the interglandular connective tissue shows increase of the number and size of the corpuscles.

Further, that this hyperplasia of the uterine mucosa reaches its height when the catamenia is due, that the cavity of the uterus is now entirely filled up, and that when the day has arrived, the mucosa may be said to be in a state resembling acute catarrh; that the cellular elements near the surface become the seat of cloudy swelling, that the connective tissue corpuscles become swollen and cloudy, that the epithelium within the follicles becomes also cloudy; then, with a step further, fatty degeneration sets in, that the disintegrated elements give way, capillary tubes are broken open, follicular walls give way, and that uterine contraction takes place and drives the blood from the muscular wall into the mucous membrane, and so hæmorrhage sets in. This is a very gentle passage from physiology to pathology, and almost what one might call a pathological condition occurring monthly. We must consider it a monthly miniature pregnancy; for weeks a preparation, for days an anticipation, and the hæmorrhages as the tears the uterus sheds of disappointment. If we consider this matter there will be very little difficulty in understanding why diseases of the uterus and ovaries do not lend themselves so readily to cure. And this, it seems to me, is a matter that is so often overlooked in treating these questions. It is no doubt perfectly true that, in those persons who are favourably situated, where the condition of inflammation superadded to the ordinary menstrual changes can be minimised by rest, mental, physical and sexual, the cure of inflammatory conditions can be to a very great extent achieved. But there is, and always must be, a large class of the community to which these conditions of rest are inapplicable, and to whom the reproduction of the species is of secondary consideration, and to those cases, therefore, there will always be the reasonably warrantable surgical interference. In respect of the dysmenorrhœa associated with these conditions, that likewise in those who are in circumstances to undergo it will always be amenable to local though not surgical treatment, but for dysmenorrhœa and that only, removal of the ovaries for inflammatory conditions is a question of very serious and weighty consideration and demands the most careful safeguarding.

I would like to divide the surgical, gynæcological, interference into at least three classes. The first class is of cases where surgical interference is necessary and includes, to begin with, ovariectomy. An ovarian tumour, no matter what its nature, or what its size, unquestionably produces ill-health, and ultimately, if there be no interference, almost certain death, and therefore, beyond any possibility of a doubt, it ought to be removed. Experience has taught us that anything like tampering or temporising with an ovarian tumour is a mistake, and after its diagnosis its removal becomes imperative. In the same class I would include all forms of pelvic suppuration. Whether suppuration be in the tube or in the broad ligament, there can be no question at all that true surgery demands that the suppurating mass ought to be removed without delay, and the extensive use of the vaginal route has shown us that this can be done with the utmost safety, and with most satisfactory results. Once more in this category I would place extrauterine pregnancy. Gynæcology has shown within very recent years no more remarkable life-saving operation than that of dealing with tubal pregnancy. The clearing up of extrauterine pregnancy has undoubtedly been one of the most noteworthy advances in pathology, anatomy, and surgical procedure that the last thirty years have shown. Till the clearing up of this question, hæmatoceles, so-called, were attributed to all sorts of causes, but we now know that the commonest cause of hæmatocele, whether the hæmatocele be extraperitoneal or intraperitoneal, is an extrauterine pregnancy. The clearing up of the question of extrauterine pregnancy has been nothing less than remarkable. We now can exclude an ovarian pregnancy practically, a primary abdominal pregnancy practically, and reduce such pregnancy to tubal, differentiating the three varieties, interstitial, infundibular, and ampullary, and it is practically in the two latter that surgical interference has become so striking.

That many cases of early extrauterine pregnancy, whether in the form of tubal abortions or in the form of very early tubal pregnancies, are absorbed, I have no doubt; but when

a tubal pregnancy has been diagnosed before rupture, which can now with improved knowledge be done with considerable certainty in the majority of cases, its removal becomes an urgent necessity; and even if it be left to go on to rupture, surgical interference, if promptly had recourse to, offers in most cases the only possibility of cure. These sets of conditions seem to me those in which there is no option whatever about surgical interference, which the brilliant records of the past thirty years fully justify us in adopting. The surgical method is the only method of effecting a reasonable cure, and therefore for the preservation of life it is necessary that the patient run the risk of the operation, or else face the alternative of death.

The most severe critic of surgical gynæcology can never for a moment deny that the latter half of the past century will ever be remarkable for these three great triumphs of surgical art; triumphs which have, as all true surgery should have for its aim, not only the alleviation of suffering, but the distinct prolongation of healthy life. With regard to these three conditions at least, there can be no manner of doubt. All the three are epoch-making events in the progress of gynæcology.

Let us look now at another class of disease in which surgery claims its triumphs as well. There is no form of tumour that is more common than the various varieties of fibroids. This is neither the time nor the place to discuss the varieties of them; but I think I may safely say that the effects which they produce upon the system are mainly either by mechanical pressure on neighbouring organs, or by the hæmorrhage to which they give rise, reducing the patient and making her liable to other intercurrent diseases. They are not often fatal, and it is an interesting fact to know that those that are most hæmorrhagic are usually the smaller, which can be dealt with readily enough, and which have been known to and recognised by gynæcological surgery since its commencement—I mean polypi and polypoid fibroids. But the effect of pressure, say on the ureter, renders them a very serious complication indeed, not to

speak of the degenerative changes which render removal imperative. In judging of them it is not only or always that hæmorrhage is the criterion, but rather their recrudescence in later life, or their rapidity of growth, must guide us in judging of them. In the larger tumours, especially those that press inordinately on organs, hæmorrhage is not the prominent feature. It is but seldom that a fibroid, considering their enormous frequency, is found to absolutely shorten life. It is very seldom one can point to a death directly from a fibroid. Hence, therefore, gentlemen, in dealing with fibroids we have got to keep before us distinctly that the surgical method of dealing with them is by no means an absolute necessity, or, in other words, the mere fact that a woman is the subject of fibroid tumours does not imply that she is necessarily an appropriate subject for surgical operation. It is often, very often, an operation of selection, of preference; an operation done with a view to aid the patient's comfort, seldom to save her life. Now in dealing with those benign, homogeneous tumours surgery is rapidly reaching perfection. I do not wish to detain you by going into any details of the various methods of removing fibroid tumours, or operations on them, either by hysterectomy or myomectomy, but the performance of a hysterectomy by Kelly or Doyen, or Segond, is no doubt one of the most magnificent surgical sights one can see. The rapidity with which it is done, the little loss of blood, is little short of marvellous. But then we must remember that the operation is undertaken for what may be, and is in the vast majority of cases, a practically harmless disease. There is a principle laid down by some surgeons, that everything that is unnecessary or redundant should be removed. Some have gone as far as to say that because a uterus has ceased functioning it may as well be removed. Some have gone as far as to say that if you have a redundant piece of uterus it had best be removed, because it is always a focus for morbid action. But surely this is a principle which can be carried too far, and when you consider the risks of the operation, the mental distress a woman must go through before the operation is



undertaken, and the awful discomforts afterwards, not to speak of the mental effects of the removal of the entire uterus, I think these operations ought to be carried out with due regard to their absolute necessity. I have visited many clinics at home and abroad, and I am bound to say that I saw fibroids removed constantly, without any obvious reason whatever, but simply because they are fibroids. A varicocele is a morbid condition, but everybody does not wish a varicocele interfered with, unless it gives rise to painful symptoms. A floating kidney is no doubt a troublesome thing, but, until it gives rise to troublesome symptoms one does not choose to have a lumbar incision, and the kidney sewn up. A retroverted uterus is sometimes a source of trouble, but surely one does not open the abdomen and perform ventrofixation for every retroverted uterus. And so it is with such harmless tumours as fibroids.

I have not referred specially to whether fibroids are to be dealt with by the abdominal or vaginal route. In either case the advances of surgery have been most remarkable, but perhaps the advance of vaginal hysterectomy has been as great and as marked as the advance of abdominal hysterectomy.

This brings me to the third class of cases with which I specially here wish to deal, cases which are, as the years go on, increasingly urgent, I mean cases of uterine cancer. No doubt, in a suitable case, uterine cancer, whether of the cervix or of the fundus, but preferably of the fundus, can be dealt with with ease and satisfaction. The operations of Segond and Doyen have rendered this an absolutely safe procedure. The operation is performed constantly by all of us who are engaged in this department of work, and when we consider the enormous prevalence of cancer of the uterus, it is not matter for surprise that we should all be anxious to do our best for the unfortunate sufferers. After mammary cancer the uterus is by far the most frequent seat. I believe I state the case very much under the truth when I say that at the present moment there are at least 8,000 women, probably a great many more, suffering from uterine cancer



in the United Kingdom. Of all women who die of cancer one-third die of cancer of the uterus; and the cervix, like other ostia, such as lip, pylorus, cæcum and rectum, is a frequent seat of it. Alas! there can be no question that it is very considerably on the increase. According to the Registrar's returns for 1895 out of a million population 755 died of cancer. Whatever theory one holds as to the essential nature of cancer, whether the evolution theory or the parasitic theory, it matters very little, so far as we at present know, in the ultimate issue of operative interference. No wonder that we have recourse to every suggestion with a view to relieving the agonies, and averting its inevitably fatal result. No wonder that the best of men are engaged every day in investigating its nature and devising remedies, local and general, medical and surgical, for its relief and cure. But what I am concerned with here is the surgical interference by means of vaginal hysterectomy. I have just said that there is no more satisfactory, no more rapid, no more uncomplicated operation when carefully performed, than vaginal hysterectomy, so long as the uterus is of moderate dimensions and fairly mobile. Here we have before us an operation undertaken for an inevitably fatal disease, and such diseases as ovarian tumours, tubal pregnancies, and pelvic suppurations, sink into insignificance in face of this dire and fatal disease. An ovarian tumour may last long enough and be relieved; an extrauterine pregnancy may sometimes come to a happy issue without an operation, and a pelvic suppuration may itself burst and get spontaneous relief, but, alas! no such hope can be held out for cancer. Therefore we are bound to try every means in our power by surgery to eradicate this disease, and as yet there has nothing better been suggested than vaginal hysterectomy, except leaving the case alone. I have elsewhere published in detail my results in vaginal hysterectomy undertaken for cancer, cases selected on the most favourable terms, and yet I have been unable to show a prolongation of life, or indeed an easier death. Others have been more fortunate. Where the uterus is movable, where the bladder is unaffected, and where it

is possible to be sure of that, where there are no infiltrated glands—if ever by any possible chance we be sure of this, which I think is impossible—and best of all when the disease is primary and limited to the fundus, there is no question that operation is desirable; but where the disease has advanced beyond these limits it is useless, and worse than useless, to attempt any operative interference whatever; and under such circumstances, in my humble opinion, the patient is best to be left alone, to die in euthanasia through opium.

The prognosis in surgical interference in cancer is a purely anatomical one.

(1) In an organ such as the bladder, which is essential to the economy, only palliation, and that to a limited degree, is possible.

(2) I take it that it is an axiom recognised in surgery that in dealing with cancer the chain of glands nearest the affected part must be cleared away. Where the lymphatics and glands, as in a case of mammary cancer, can be completely cleared out, and no operation on the *mammæ* can be considered complete without this—even in cancer of the lip, the old V-shaped incision is not enough, the sub-maxillary glands must be removed as well—the prognosis for operation is excellent. But in the *mamma* only 40 per cent. even then offer so-called permanent cure in the breast, though recurrence may occur after three years somewhere else. For it must ever be kept in view that infiltrated glands do not require to be seen or felt. They may show no suspicious appearances whatever, even when microscopic examination will shew them to be the seat of infiltration.

This is the initial difficulty in dealing with the uterus. To this all operators are now turning their attention, for even in early cases the glands are often affected. The two desiderata in dealing with a cancerous uterus are first, and mainly, early recognition and the possibility of dealing thoroughly and efficiently with the glands and lymphatics. As yet no very satisfactory method of accomplishing this has been devised either by the abdominal or vaginal route.

It is most remarkable, speaking entirely from experience as gynæcologist to a large hospital, how very few cases present themselves in such a condition as to offer even the remotest hope of a successful removal. Personally the great majority of cases in which I have thought it worth while to perform the operation have been in private practice. The uterus and adnexa, unlike the bladder, not being essential to the life of the patient, might be successfully dealt with in malignant disease were it not for the question of the glands and lymphatics.

Hitherto hysterectomy for cancer has not been by any means a brilliant success so far as the ultimate issue of the case is concerned, for the reasons I have just mentioned, viz., early recognition, removal of lymphatics and glands. This is certain, that while some are relieved, and some may enjoy a considerable period of immunity, it is never possible to promise a cure in any individual case. I am well aware that this opinion has been traversed, but I will only say this, that I can point to cases now that have been diagnosed microscopically as uterine cancer and been left alone, who have lived beyond the usual term of cancerous patients, 3 four years, 1 five years, and who have performed their duties more or less satisfactorily during that time, and died comparatively easy deaths; whereas I can point to others on whom operative interference was had recourse to who have died shortly, say within a year, afterwards from peritoneal cancer. Nothing can exceed the beautiful technique of Kelly, Segond, and Doyen, but even Segond, who was amongst the originators of vaginal hysterectomy, has arrived at a very similar opinion. In suitable cases we must go on operating until we succeed, but in those cases which are advanced, and which statistics have shown us that operations do not prolong life or lessen suffering, surgical interference should be absolutely withheld. What the future holds in store for us with regard to the treatment of cancer none of us can say, but so far as our knowledge at present goes, surgical interference, except in the earliest and most favourable cases, is unavailing. It is needless for us to com-

pare mammary cancer with uterine. The two conditions have nothing in common. Mammary cancer can be, and usually is, recognised early, and the statistics give the most satisfactory results; but uterine cancer is unfortunately very different; pains, and hæmorrhages, and discharges, go on for long before the patient seeks advice, and the most of them, therefore, when they come under the charge of the gynæcologist are too far advanced to offer the chance to which I have just alluded.

For the present the surgical treatment of uterine cancer, unless under the most exceptional circumstances to which I have referred, is, to say the least of it, unsatisfactory, and, perhaps, great though the advances and achievements of surgery have been, it is possibly very much more likely that the great advances will not be surgical but medical, and that this hitherto unconquered foe will fall vanquished by means devised to produce the death and destruction of a bacillus. Until that time arrives vaginal hysterectomy must be persevered with in some of its many modifications.

But, gentlemen, enough of gynæcology. A society like this one is of immense benefit to the profession, not only because it advances the science and art of gynæcology, but because its aims are ethical as well. Here men learn to know their contemporaries, to estimate their value, appreciate their worth, and respect their power. Men come to see that they cannot do without each other, and that their equals may be the greatest of their teachers. Men learn in such association with their fellows to love truth above all things, and others more than themselves, and thus to rise above jealousy of and detraction from one another. In such societies, if rightly used and properly taken advantage of, you may learn how small and insignificant you are compared with the progress of knowledge; and, if you have learned aright, you may further learn in such association never to be jealous of success when it has been fairly and honestly earned, or to be embittered in your own minds because another has anticipated success in life or knowledge, and grasped a prize you yourself could not overtake.

This is a lesson we have all got to learn, and the earlier we learn it the better for ourselves. It is simply the lesson of the truest charity which seeks not her own, and knows how to look not merely on her own things, but also on the things of others. . Perhaps our own profession has earned for itself the opprobrium of the *odium medicum*. Perhaps this *odium medicum* is a much misconstrued truth, and I am not sure that it applies to our own profession any more than to the profession of the Church or the Law. I think perhaps if I were to tell the absolute truth, it applies just as much to the Church as it does to us. But be that as it may, this I do know, that if anything will soften the spirit of rivalry, or lessen the friction of that which is too apt to accompany the struggle for professional preferment, it is the training which societies such as this which you represent this afternoon are so eminently fitted to give, the healthful influence of learning to associate with one another in a kindly, courteous manner, though differing perhaps *toto mundo* in thought and practice. The search for truth ought to be the paramount and ultimate object of us all. We must all learn to love truth and one another only the more sincerely as we reach truth and aid in apprehending and diffusing it. A right use of such a Society ought to bear much valuable fruit in the days that are yet to come. The interchange of thought and the courteous and kindly fellowship which such a Society fosters, as well as the friendly intercourse between old and young, between youthful enthusiasm and the serenity of old age, should teach us, if nothing else, at least the three reverences ; reverence for that which is above us, our seniors in age, our superiors in thought, our teachers, whether divine or secular ; reverence for our equals, our contemporaries, our fellow-workers, our competitors in the race of life, being generous to them as we would like them to be generous to us, scorning to take a mean advantage or speak a detracting word. Forget not, however, gentlemen, the third reverence ; reverence for that which is below us, the less gifted, those who have had fewer advantages, those, it may be, who have misspent their time, or through their own fault have come

to distress, and those who of necessity are our inferiors. This reverence for what is in a sense below us is the noblest of all reverences, as it is the highest attainment in culture, whether moral or intellectual, which you can reach. Alas! how very few of us realise or even recognise in later life the ideals of youth. Those who ever do must subordinate self, and strive for that which ennobles and uplifts others. In working for others and human welfare generally, the highest energies of the soul may be employed without waste and loss of power.

And after all this ought to be, as I believe it really is, our highest ambition. The ethical standpoint of a gynæcologist ought to be the highest, because women unreservedly and confidingly trust themselves to his hands to undergo anything he may suggest. It therefore should be with us, as I am sure it is, our earnest endeavour to make ourselves worthy of the trust and confidence which womankind place in us. In the adoption of our various methods of work, though some in our department be somewhat conservative, and others inclined to press rapidly on and risk much, yet the end we all aim at is one, and as the end is one, so plainly it is our duty and our privilege to take the best wherever we find it, and to hand down the torch to our successors—*Quasi cursores vitæ lampada tradunt*. And notwithstanding failures and disappointments which must be the lot of us all, yet our watchword ought to be—

Yet do thy work, it shall succeed  
In thine or in another day,  
And if denied the victor's meed  
Thou shalt not lack the toiler's pay.

Faith shares the future's promise ; Love's  
Self offering is a triumph won :  
And each good thought or action moves  
The dark world nearer to the Sun.

Dr. ROBERT BARNES, the Honorary President of the Society, said that the rapturous applause which Dr. Halliday Croom's address had received, made it an easy task for him to propose a hearty vote of thanks to their new President.

The address they had just listened to was full of eloquence, knowledge, and noble thoughts. By occasionally giving such a retrospective glance to what is behind us we were helped in the selection of the right path that lay before us, and our choice of that path was of the gravest importance. The British Gynæcological Society was British not only in name but in reality; it was not a Society for London alone, though its headquarters were in London. It showed that it was British when it attracted the help and support of men in Scotland and Ireland and our distant colonies; and therefore they would be right in calling it a national and universal Society. Nothing was to be said in favour of medicine generally that might not be more strongly said in favour of gynæcology. In fact, the system of medicine began in gynæcology as far back as the time of Eden. From that time to this, womankind had been under the care of men, and men still maintained and practised their noble duty towards women. As the source and foundation of medical knowledge, gynæcology not only constituted the basis of all scientific physiology and medicine, but it was a national science of the greatest importance, especially at the present moment, for to support, to propagate, and improve this branch of medicine was doing nothing less than to regenerate and reinforce the power of this country. At this present time of war the truth of this could not be pressed home too far, since the care of woman was now more especially their duty, not only to womankind, but to the country. It would be impertinent for him to dilate further upon this subject, but he would say this one thing: that the British Gynæcological Society represented the progress of the art of Gynæcology more than anything else in London. He proposed a vote of thanks to the President who had come from Edinburgh to deliver an address, which should prove an effective stimulus, an irresistible impulse to further the work of the Society.

Dr. J. A. MANSELL MOULLIN had great pleasure in seconding the vote of thanks so ably proposed by their Honorary President, Dr. Barnes, to the President for the very



classical address to which they had just listened. It contained very many topics of extreme importance, and although they were unable to discuss its contents, since they were presented in the form of an address, he hoped the President would during the coming year give them many opportunities of considering the subjects he had commented upon.

Dr. ABRAHAM WALLACE supported the resolution and expressed the delight of the Society at seeing their venerable friend, Dr. Barnes, present on this occasion. He believed he had been invited to support the motion because he was the oldest friend of Dr. Croom in the Society. He remembered going to Edinburgh as a raw student and receiving a great deal of kindness from him in their association and friendship. Dr. Croom was then a tutor in Medicine, and his ability to hold such a position had been amply demonstrated by the logical way in which he had addressed them that evening. He always placed before the student's mind high ideals of truth-seeking, and it was a great pleasure to have this opportunity of thanking him for the very pleasant reminiscences of old student days in Edinburgh under his tuition. He had placed before them that night a very broad-minded logical *résumé* and retrospect of gynæcology and had made very interesting suggestions as to the future prospects of the Society. The present was not the time to make any criticisms and he would only add his testimony to the honour they had tried to do Dr. Croom in electing him to the highest position in their power.

Dr. HEYWOOD SMITH also supported the resolution and thanked the President for the most masterful address he had given them, which he was sure they all would derive great pleasure in reading in the Journal of the Society. Those of them who were present and had to do with the inception of the Society must indeed be gratified to hear the testimony coming from their new President and that great centre of scientific work in Edinburgh. The Society was one that had really done a great deal of work, and he trusted Dr. Croom's advent would freshen its activity and urge them to further exertion.



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In reply, Dr. HALLIDAY CROOM said he considered that the Society in electing him as their President had conferred upon him the greatest honour he had ever received or would ever receive. He was especially glad to see Dr. Barnes among them that he might thank him; the very first clinical lessons on gynæcology that he had were from Dr. Barnes's book which was published thirty years ago, at which time it was *facile princeps* of gynæcological text-books.

**BRITISH GYNÆCOLOGICAL SOCIETY.****THURSDAY, MARCH 13, 1902.**

**J. HALLIDAY CROOM, M.D., F.R.S.E., &C., PRESIDENT,  
IN THE CHAIR.**

**SPECIMENS.**

**DERMOID CYST OF THE LEFT OVARY WHICH CAUSED OBSTRUCTION TO DELIVERY.** By J. FURNEAUX JORDAN, M.B., B.Ch., F.R.C.S. Surgeon to the Hospital for Women, Birmingham.

ON February 12 last, I received an urgent summons to a consultation with Dr. Norris, of Perry Barr, upon a case of labour in which delivery was prevented by a pelvic tumour, probably a cyst.

The patient, aged 29, and married between four and five years, had one child three years old. No pelvic trouble had been suspected until, after she had been in labour three or four hours, the head failed to descend.

On examination I found the head, surrounded by the dilated cervix, jammed behind and above the pubes, while behind and below it was a firm, immovable, moderately tense, and smooth swelling. I decided at once against "tapping in the dark" as a means of relief. I thought it might be possible to incise the posterior vaginal fornix, tap and remove the cyst, and then deliver the child, but found it absolutely impossible to pull down the cervix so as to bring the vaginal fornix within working distance. Under the idea that the child might still be alive I proceeded immediately to open the abdomen, and deliver by Cæsarean section, for it was clear that the cyst could not be removed till the child was out

of the way, nor the child delivered by the pelvic route while the cyst remained where it was. Unfortunately, I was just too late to save the child's life. After closing the incision in the uterus by a continuous silk suture, I removed this dermoid cyst. It was deep down in the pelvis, densely adherent everywhere and obviously could not have been removed by the vaginal route even if I could have easily reached the posterior fornix. Tapping would have been probably disastrous and certainly ineffectual. The patient made an uneventful recovery.

Mr. JORDAN also showed :—

**MULTI-NODULAR MYOMA OF THE UTERUS AND BOTH  
BROAD LIGAMENTS, REMOVED BY SUPRAVAGINAL  
HYSTERECTOMY.**

The patient, aged 40, and married fourteen years, had had no children and no miscarriages, nor any excessive loss at her menstrual periods, but in the last year or two had occasionally gone a little over four weeks between two periods. She was first seen by me early in November, four months after she had detected a lump in her abdomen. On examination then "the lump" was found in the right groin, but the greater part of the tumour occupied the pelvis. Pain was persistent, but not severe. On her admission into the Women's Hospital on January 13 of this year I found that there had been a decided increase in the size of the tumour; the lump in the right groin caused a marked prominence; a second and smaller lump occupied the left groin, and caused a slight prominence there, and there was a depression in the abdominal surface between the two. The pelvis was practically blocked by the tumour, especially at the sides. The general condition of the patient was good, her pulse slow and uniform; her urine contained no albumin, and was of specific gravity 1021.

On January 15 I performed a supravaginal hysterectomy, by Howard Kelly's method in the Trendelenberg position. I went down on one side, divided the cervix at the level of

the internal os, and ascended on the other side. I could not, however, divide the broad ligaments in the usual way, for portions of the tumour had completely invaded both the right and left ligaments, and the division of each broad ligament, therefore, really consisted in the enucleation of the tumour from its interior. The right and larger portion of the tumour had lifted the peritoneum from the iliac fossa, and the cæcum and the vermiform appendix were spread out upon its upper surface, and I found it advisable to remove the appendix. It was impossible to deliver the tumour through the abdominal incision even to the slightest extent until all its attachments had been divided, as the greater part of it lay beneath the peritoneum. After its removal the cut edges of the peritoneal covering were easily brought together in a line across the floor of the pelvis, and united by a continuous suture of fine silk. With the exception of a small stitch abscess, which occurred about the tenth day, her recovery was good. I had, however, some difficulty in getting the bowels to act on the second day; it was imperative that they should do so, for there was very great distension of the abdomen. After repeated turpentine enemata had failed, a very high injection of olive and castor oils, followed by gentle massage of the abdomen, proved effectual in getting rid of large quantities of flatus and fæcal matter.

The PRESIDENT said the Fellows would agree that the dermoid cyst presented by Mr. Jordan was one of the most interesting specimens which could be brought before any Gynæcological Society, and he congratulated him upon the skill and care with which he had completed his work. He had himself seen only one such case, and his fortune had not been so good as Mr. Jordan's, as the patient died.

LARGE UTERINE MYOMA. By W. DUNNETT SPANTON, F.R.C.S. Consulting Surgeon to the North Staffordshire Infirmary.

Mr. SPANTON said he brought this specimen, weighing 8½ lbs., before the Society as a particularly interesting

example of one of the many forms of myoma with which one had to deal. It occurred in an unmarried lady, aged 37, to whom of course a tumour of that size was an enormous burden. It began, as was often the case, very obscurely, and with scarcely any symptoms at all until a very few months before he saw the patient in January. She had metrorrhagia with a certain amount of pain, and the increase in the size of her abdomen was sufficiently gradual and suspicious to make the friends keenly alive to the possibility of pregnancy, and to the outward feel it was just one of those cases which might very easily have misled anyone. He found it was a myoma, and operated by the usual method, making flaps and tying each broad ligament in three portions, leaving the cervix, draining the cervical canal into the vagina, closing the flaps with catgut, and putting interrupted sutures through the peritoneum in the ordinary way. Although the specimen probably suggested that enucleation might have been possible, at the time of the operation such a course appeared quite out of the question, there was no projection whatever into the interior of the uterus, and the tumour appeared to be entirely embedded in the uterine wall; he therefore thought that he had adopted the right course under the circumstances. A little over a month from the operation she went home perfectly well. The case illustrated the advances which had been made during the last few years in the surgical treatment of such cases and the very satisfactory results following such treatment.

UTERUS WITH FOUR FIBROID TUMOURS REMOVED BY HYS-  
TERECTOMY. By ROBERT O'CALLAGHAN, F.R.C.S.I.

This specimen was removed from a woman, aged 39. When admitted into hospital she was thought to have an attack of acute hepatitis which turned out to be a localised peritonitis in one of the fibroids, which was securely attached to the liver by old adhesions; there being a long pedicle between this one fibroid and the others; it appeared as if it was a separate growth attached to the liver. On opening

the abdomen this fibroid was found to be strongly adherent to the liver and apparently part of it; it was also attached to the hepatic flexure of colon and great omentum. It required considerable force to break it away, after which there was some smart bleeding, which was for the moment packed with a large, hot sponge. The smallest fibroid was fast also in Douglas' pouch; after delivering this he removed the uterus which contained two large fibroids and the appendages. The patient had a smart attack of localised peritonitis, which yielded to three grains of calomel followed by a seidlitz powder, and turpentine enema, but is now quite well, four weeks after operation.

Mr. O'CALLAGHAN also showed a

#### FIBROID UTERUS AND CYSTIC OVARIES REMOVED BY HYSTERECTOMY.

This specimen was removed from a patient, aged 40, sent to him by Dr. Vintras. She had very little trouble until a year ago, when menstruation became very profuse, reducing her to a bloodless condition, and her bladder became so irritable that she could not retain urine for more than an hour, unless lying down, and constipation, amounting to obstruction, gave her much trouble. On opening the abdomen this was easily accounted for, as both ovaries, which were adherent, contained large blood cysts (rupturing on enucleation), and this condition tilted the uterus forward, at the same time fixing it well down in the pelvis. She made an excellent recovery, and is now, two weeks after operation, convalescent.

Dr. MACNAUGHTON-JONES said the Fellows were very much indebted to those who had brought the specimens forward, and there were one or two points connected with them which were interesting. Mr. Furneaux Jordan's first specimen showed how foolish it was to lay down any particular rule with regard to the method or technique of removal of myomata. Looking at the specimen and recognising the extreme difficulty of freeing the masses at either side from the broad ligaments without injury to the ureters, the critical

point in the removal of such deep-seated pelvic myomata, Mr. Jordan's success showed clearly the superiority of the ligature over any other method of removal. He had himself never tried the application of any form of forceps pressure or clamping of the ligament on either side in a similar case ; but it was only necessary to look at the specimen to see how extremely difficult it would be to secure the ligaments at either side of such a tumour with a large clamp without injury to the ureter and other trouble, and what risk would be attendant on the attempt. With regard to the specimen shown by Mr. Spanton, possibly if Mr. Spanton had a similar case in which he could be sure that the tumour was encapsuled he would divide the capsule and then rapidly enucleate its contents. The removal of the capsule made the removal of the myoma under such circumstances particularly easy. There was one point about Mr. O'Callaghan's tumour which he would like explained. He (Dr. Macnaughton-Jones) had never before heard of a uterine myoma which had an attachment to the liver, and would like to know the nature of the attachment. A peritoneal attachment to the transverse colon could be understood, but an attachment which involved the liver substance proper would be unique, and would surely lead to such profuse hæmorrhage as one would expect to be fatal. He simply wished to have the statement quite clear for the sake of the records.

Mr. MANSELL MOULLIN congratulated Mr. Jordan on the successful termination of the case. Such cases had sometimes a way of developing abdominal symptoms at the end of a week or ten days, such as flatulence and abdominal distension and tenderness, which caused their medical attendants great anxiety. In one of the kind quite recently he had successfully adopted the treatment employed by Mr. Furneaux Jordan, namely, the use of enemata and castor oil, but such treatment was not always effectual, and not long ago, in a case in which symptoms of obstruction developed on the sixteenth day, he unfortunately delayed opening the abdomen because he did not like to undo work which appeared to have been very successful. When he did open

the abdomen, as he was obliged to do after four days, he found most extensive adhesions in every direction, not only to the top of the uterus, but between the intestines, one coil of which was tied down in the pelvis and completely strangulated. Only half an inch of bowel was strangulated, and he made an end to end anastomosis which, unfortunately, was not successful. He ought perhaps to have brought the strangulated portion to the surface and left the primary operation for a future occasion, but this was the only case of the kind which had ever occurred in his practice, and he hoped it would be the last, as such an experience made one very nervous when similar accidents seemed imminent.

Dr. SNOW, in reference to what had fallen from Dr. Macnaughton-Jones on Mr. Spanton's specimen as to enucleation, said that this was the class of tumour on which he, Dr. Snow, following upon the footsteps of Mr. Lawson Tait, had recently read a paper; he described as a Monoma a single tumour, steadily increasing in size until it produced death; and he wanted to ask whether Mr. Spanton would consider the growth malignant. If so, he thought enucleation would be the worst possible policy, because in a very short time there would be recrudescence or recurrence. It would be interesting to hear whether Mr. Spanton had the growth examined under the microscope, and if so whether any portions of it showed a more embryonic structure than the rest, thereby plainly indicating its passage into an embryonic or sarcomatous stage. The other specimens on the table that evening were multiple myomata, and Mr. Spanton's was the only one which seemed to belong to that comparatively rare form to which, in order to emphasise its solitary nature, he (Dr. Snow) had given the name Monoma.

Dr. WILLIAM TRAVERS said he simply wished to draw attention to one short line in Mr. Furneaux Jordan's admirable report. Speaking of the discomfort and tension and possible peritonitic symptoms on the second or third day, it was a great comfort to all, and especially early, operators, to remember that the pulse was no doubt, in the first few days, the greatest guide in such cases. The signs which super-



vened on the second day or the third day had naturally made Mr. Jordan anxious, believing the mischief to be traumatic, and that it arose from the handling of the tissues, for the handling had to be somewhat roughly done for the purpose of clearing out the growth. But he (Dr. Travers) thought that, generally speaking, there was not enough notice taken of the pulse as an indication of the condition of affairs. He felt very strongly that the chief guide in the first few days was the pulse, and if that kept below 100, and better still if it kept at about 90 or below, one could be content to leave things alone. He had no doubt that these early peritonitic symptoms accounted for the adhesions, which were often very considerable, but later on might become troublesome.

Mr. RYALL said he was much interested in Mr. O'Callaghan's case, as it was one of those which proved how fibromyoma could become adherent to some of the intra-abdominal viscera, and very often be a cause of error in diagnosis. He remembered being present at an historic operation upon a woman for an enlarged spleen. Several very eminent men were present, and one very eminent lady doctor. They all felt the tumour and even detected the notch in the spleen, but when the abdomen was opened the tumour was found to be one of those pedunculated fibromyoma with an extremely long pedicle, and one without any intimate connection with the uterus. He believed the ancient pathologists used to say it was impossible for fibromyoma of the uterus to be adherent to the small intestine; but adhesions frequently did occur between fibromyomata and the small intestine, not to mention other viscera. He thought Mr. Spanton was to be congratulated for not trying enucleation in his case. Very few surgeons would have the courage to enucleate a soft, rapidly growing myoma of the uterus, and such an operation in this case would have been very difficult; the tumours easy to deal with in that way were multiple fibromyomata of the uterus, even then the results were not always satisfactory. A few years ago one of the most eminent gynæcologists in

London removed some fibromyomata of the uterus by abdominal enucleation from a patient who recovered, but again grew worse after returning home; her friends would not send her back to the same surgeon and she came under his (Mr. Ryall's) care. From the notes of the case it appeared that the other operator had satisfied himself that he had left the uterus free from any trace of such growths, nevertheless twelve months afterwards, when the patient came into his (Mr. Ryall's) hands, he found she had a fibromyomatous mass almost as big as Mr. Spanton's specimen. That case alone sufficed to show that the question whether supravaginal hysterectomy or enucleation was the better was still undecided. In reference to Dr. Travers' remarks upon the abdominal distension which had given Mr. Furneaux Jordan some anxiety, Mr. Ryall said he was inclined to regard the pulse as the only really valuable and dependable sign in acute abdominal trouble from first to last.

The PRESIDENT said that Mr. Furneaux Jordan deserved the very greatest possible acknowledgment for his success in the case in which labour was complicated by an ovarian tumour. He had in a very similar one himself met with the reverse. The patient was in labour, and the medical man in attendance had put on forceps, and in pulling the foetal head down he crushed the tumour. There was no possibility of removing the tumour by the vagina, and the woman died. With regard to Dr. Snow's remarks on Mr. Spanton's case, that monoma was usually malignant he (the President) had had a very curious experience. A great many years ago Mr. Tait, when visiting Edinburgh, had asked him (the President) to provide him with two show cases, upon which he could operate for the benefit of the profession. He selected one for removal of the ovaries in order to check the increase of a fibroid tumour, a single myoma such as Mr. Spanton had removed. The lady of course made an excellent recovery, and the case was recorded in Mr. Tait's book. But the lady died long afterwards, and she was the only woman he had ever known to have died directly from uterine hæmorrhage due to a myoma. He accordingly

wrote to Mr. Lawson Tait to tell him that his operation in that instance had been unsuccessful. He received a most characteristic reply saying that the fault was his (Dr. Croom's), for he had mistaken a sarcoma for a myoma. It certainly seemed to be a myoma exactly like that shown by Mr. Spanton. He scarcely knew what would be the best course in dealing with monomata. He could not say he would be disposed to enucleate; at the same time removal of the ovaries did not seem to offer much hope. Distension to him was a very serious feature, and he quite agreed with others who had spoken that the pulse was the indication as to the gravity of the case. He thought the treatment adopted had been the best.

Mr. FURNEAUX JORDAN said, that before replying about his own specimens he would like to refer to one of the others. He took it that in the case of a large single myoma, such as Dr. Snow termed monoma, all were agreed that the removal of the appendages had practically either no effect at all or a very temporary one; sooner or later the hæmorrhage would recur and the tumour increase in size. He gathered that Dr. Macnaughton-Jones did not say the tumour should be enucleated, but that it might be enucleated to facilitate the removal of the uterus.

Dr. MACNAUGHTON-JONES said he had distinctly stated that it was only to facilitate removal of the tumour that he would remove the capsule first.

Mr. FURNEAUX JORDAN, continuing, said even that required boldness, because with large soft tumours one was more liable to get severe hæmorrhage than from actual excision of the uterus. It would have been absolutely impossible to have removed the tumour which he had himself shown that evening by any clamp operation; he could not even draw it through the abdominal wound until its last attachments had been divided, and on that account the operation was one of the hardest he had ever had to perform. As to the distension which supervened on the second day, the patient had had two turpentine enemata in the morning, and one in the afternoon of the second day, and on his visiting

her again in the evening he ordered her another, but without any result. Her pulse was slow, but he felt that if the distension continued the bowel would become paralysed from the enormous stretching of the walls, and he therefore gave her a very high injection of olive and castor oils and massaged her abdomen very gently for a quarter of an hour afterwards. That was a proceeding he had not previously adopted, but he had since tried it again and with excellent results. The quantity of flatus and fæces passed was enormous, and in two or three hours the abdomen had become soft and almost flat. He quite agreed with the opinion so generally expressed that the pulse was the one thing which was a reliable indication of the patient's condition, serious or otherwise. A case he had the other day illustrated the stupidity of non-intervention in abdominal trouble:—A lady who had had a myoma for some years had been advised not to have it removed, though it reached up to the umbilicus, as her periods were getting less profuse. She was suddenly seized with acute pain in the abdomen and collapse, with sickness and rapidity of pulse. On the right side there was a small area of acute tenderness, but nothing very definite to the touch, because on account of the pain and tenderness one could not palpate the abdomen deeply; nevertheless, feeling certain something acute had happened, that possibly the pedicle had become twisted, he opened the abdomen and found a small subperitoneal fibroid, with a pedicle twisted as tightly as that of an ovarian cyst. It was black and beginning to slough in places, and no doubt to it all the bad symptoms were due. Now the feature which made him conclude the case was serious immediately he saw it and decide to operate at once was the fact that the patient's pulse was between 150 and 160. He was only allowed to remove the fibroid which was beginning to slough, and had to leave the big tumour alone; but as the patient was a very stout woman, and in a very bad condition, it was perhaps fortunate that he did not attempt complete hysterectomy.

Mr. O'CALLAGHAN, referring to the tumour which Mr. Furneaux Jordan had shown, said that after twenty years'

experience of abdominal surgery he could affirm that there was no more difficult tumour to remove than fibroma which opened one or both broad ligaments. With regard to Dr. Macnaughton-Jones' remarks concerning the attachment of the tumour to the liver, Mr. O'Callaghan said that as he believed in and practised brevity in his reports he might have omitted facts which would have made the narration plainer. He was called in consultation by the physician in attendance to see the case as one of fibroid in the pelvis. But there was also a tumour so adherent to the liver that the hepatic dulness was continued over it to a certain point; there was a short pedicle, so that there was distinct division between the tumour attached to the liver and the fibroid of the pelvis, the sulcus between which was resonant. His first impression was that a tumour attached to the liver had dropped into the pelvis. He had to open the abdomen up to above the level of the umbilicus; he palpated the tumour which was adherent to the right lobe of the liver, and thought it was perhaps attached to the coronary ligament. It was so firmly attached that he felt diffident in trying to get it away, and would have liked to have seen what he was doing, but that was impossible, and so with considerable force he broke it away from its adhesions to the liver. There was a very smart gush of rather alarming hæmorrhage, but as he had the remainder of the operation to do he packed the bleeding area with large hot sponges, delivered the tumours and removed the whole disease. He took away the sponges and retained a drain for twenty-four hours on account of the bleeding from the seat of the adhesion, which was undoubtedly hepatic.

Mr. SPANTON, in reply, said that no microscopical examination had been made of this specimen, and he could not speak of its histological character. He appreciated Dr. Macnaughton-Jones' remarks as to first enucleating the tumour and then removing the body of the uterus, but it must be remembered that when the tumour was *in situ* its appearance was very different to what it was at present when out of the body. It was much simpler to lift out a tumour

of that sort bodily from the pelvis at the time the broad ligament was clamped. He believed the operation he did was justified, and would do the same again in a similar case. As Dr. Snow had pointed out, tumours which are single show a tendency to increase or degenerate rapidly, and in the one he showed that evening there were already centres of necrotic degeneration which he anticipated would have led to serious symptoms in the course of time. The wisdom of the modern practice of removal of such tumours as early as possible was shown by such degenerations.

MYOMA OF THE BLADDER, WEIGHING 9 OUNCES, SUCCESSFULLY REMOVED SUPRAPUBICALLY. By P. J. FREYER, M.A., M.D., M.Ch., Lieut.-Col. I.M.S. (retired). Surgeon to St. Peter's Hospital.

Mr. FREYER, after thanking the Society for inviting him to take part in their proceedings, said:—The patient from whom this tumour was taken, a married woman, aged 24, was admitted to St. Peter's Hospital, October 19, 1901, suffering from tumour of the bladder. Her catamenia came on at 15 and had not been in any way abnormal. Her first child, four years ago, was born by a natural but perhaps somewhat tedious labour. A year afterwards she began to pass blood in her urine, but this was unaccompanied by pain or any other symptom. When this hæmaturia had continued for about a month she had retention, perhaps due to a clot of blood or to obstruction by the tumour; she had a catheter passed and was in bed for a couple of months, during which time she noticed that a lump came down whenever she made water. She therefore went into a London hospital and was operated on, the urethra being dilated and the "bladder scraped." The hæmaturia continued, but she could pass urine "by leaning back a little." Two years ago she became pregnant again, and during her confinement the doctor had "to push back the lump" out of the way of the child's head. After her recovery the tumour impeded micturition and she had to press it back with her fingers before the urine could

flow. Her symptoms at this time and since, included great frequency of micturition, straining and hæmaturia, especially after exercise of any kind, and pain in left iliac fossa. A smooth globular tumour, the size of a cricket ball, was found protruding through the vulva, covered by the anterior wall of the vagina, and capable of being pushed back by the finger, and apparently not connected with the uterus, which was situated high up in pelvis. The urethra was irregular and puckered, showing signs of previous dilatation. The patient was thin, and in the prone position a globular swelling, the size of a cricket ball, projected in the middle line above the pubes. This proved to be quite movable when examined by a hand placed on the hypogastrium and a finger in the vagina, but fixed deeply in the bladder to the anterior wall of the vagina. Urine acid, some albumen and pus, specific gravity 1022. By cystoscopy on October 23, 1901, a large rounded tumour was seen attached by a broad base on the trigone and left side of the bladder, between the orifices of the urethra and ureter on that side; it was smooth on the surface, and covered by normal mucous membrane with large veins coursing in it. There was no ulceration, and the bladder looked healthy. The left ureteral opening was seen behind the tumour, irregular, and pushed backwards out of its normal position. I arranged to operate on October 30, but on the night of the 29th received an urgent summons to the hospital and found the patient collapsed from furious hæmorrhage, evidently due to the opening of a blood vessel during the use of a catheter; pulse 130, very small; face blanched; sighing respiration. We feared she was dying. Ergot, hazeline, and gallic acid given by mouth, and morphia hypodermically, and she passed a fair night, but was very weak next day when the operation was undertaken.

The bladder was opened suprapubically and much clotted blood removed. The tumour, smooth, rounded, but elongated, and with a broad base, was found growing from the trigone, left side, and front of the bladder. The mucous membrane was incised and the tumour easily shelled out by the finger. The bleeding was slight and was easily controlled by irriga-



tion with hot lotion. The patient was rather collapsed for a couple of days, after which she progressed favourably and was discharged quite well on November 30. A few days before her discharge I cystoscoped her, and found that the bladder was quite healthy, a puckered scar on the left side being the only indication of an operation having been performed. The patient has put on flesh, and is now in excellent health. She is untroubled by any urinary symptom.

The tumour weighs 9 ounces. Mr. Thompson Walker, who has examined it, reports:—"The tumour consists of unstriated muscle fibre (a myoma or leiomyoma). The fibres run in bundles which in the section are cut obliquely, transversely, and longitudinally. There is no tendency to a circular arrangement of the fibres around the blood vessels such as is frequently seen in myomata. The vessels are numerous, but small, and in this part of the tumour at least, consist simply of spaces lined by endothelium. There is at one part of the section a portion of a fibrous capsule. There is no sign of degeneration of any kind and no suspicion at any part of sarcomatous transformation. The very small amount of fibrous tissue is remarkable."

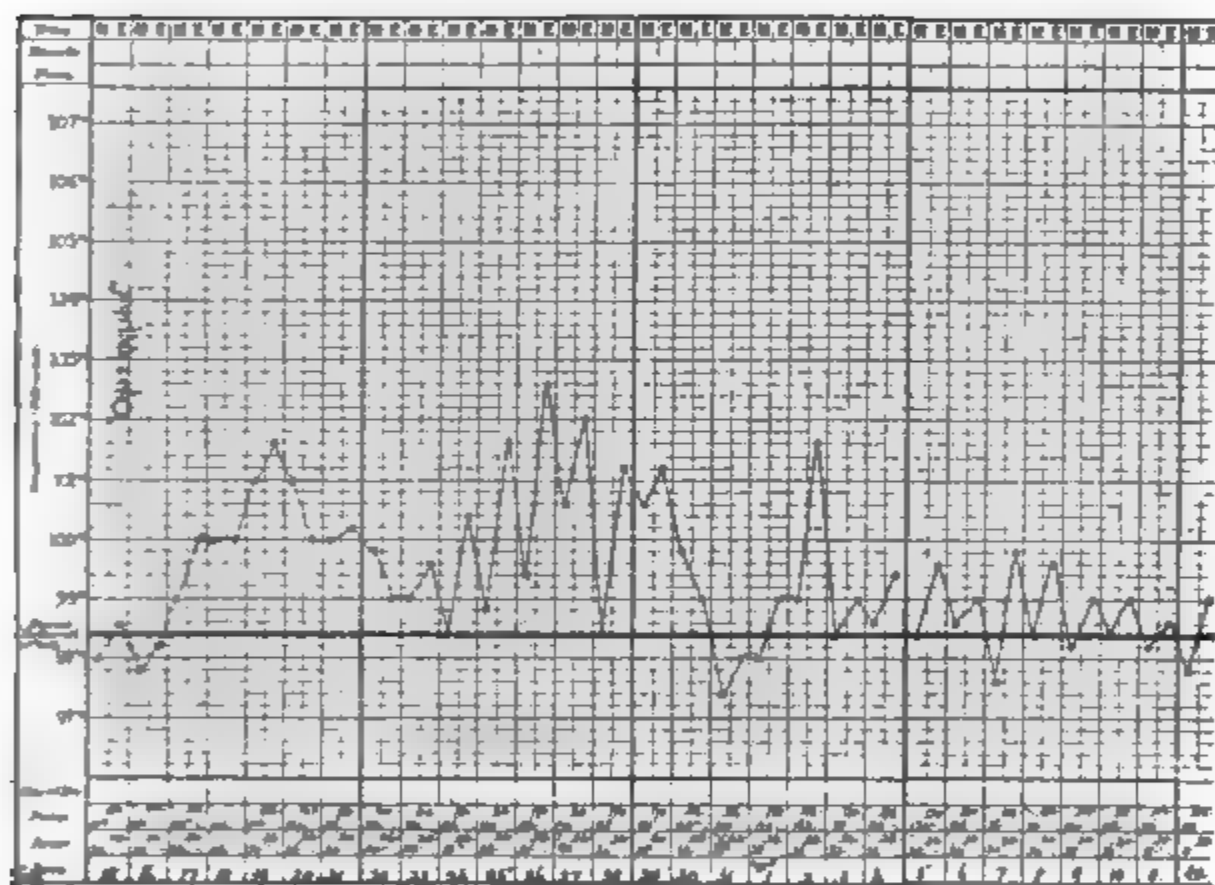
Fibromata of the bladder are, as is well known, extremely rare, and this is, as far as I am aware, the largest intravesical fibroma on record. A much larger myoma, weighing several pounds, the pedicle of which, as the *post mortem* showed, was attached to the peritoneal aspect of the bladder, was removed by a gynaecologist some years ago, under the impression that it was a tumour of the broad ligament.

The PRESIDENT thanked Mr. Freyer for his most instructive case, which it was very kind of him to come and show. The specimen was a very interesting one, and, as far as he knew, absolutely unique.

Dr. MACNAUGHTON-JONES exhibited a temperature chart of a case of hysterectomy for myoma, which he pointed out had a very definite bearing on the value of the condition of the pulse as a guide in the after treatment of abdominal operations. The chart was that of a case which he had in 1899; the patient made an admirable recovery, and he had



always intended to bring it before the Society as an example of the infinite variety of the post-operative symptoms after hysterectomy. Mr. Ryall had said that in acute abdominal conditions the important matter was pulse from first to last, but other surgeons were inclined to attach more importance to intestinal symptoms and others again looked principally to the temperature. In the more serious cases any one of those indications might give the greatest anxiety, but personally he did not attach much more importance to any one than to the others. Nor was he himself much alarmed by a little extra



rapidity of pulse; in nervous women the pulse depended upon the nervous state and varied very greatly, and his own feeling was that even with a high pulse, if there were a fair temperature, there was not much necessity for alarm if the bowel could be got to move. But if the pulse went up, and there was at the same time decided elevation of temperature, the danger, he thought, was extreme. The patient from whom the chart was taken was a highly nervous woman.

She made an excellent recovery, without pain, vomiting or nausea; the sutures came out without any difficulty, and there was no stitch abscess or trouble of any kind in the wound or peritoneum from first to last. Still, it would be seen from the chart that the pulse rate progressively increased from 100 to 105 and then from 100 up to 140. It became dicrotic a few days after the operation, and at the end of the first week reached 190 in the minute, and subsequently was 160, 150, 170, the rapidity persisting for a fortnight. The records were taken by a very accurate medical man, and the case was not operated upon in a Home. While the temperature range varied, though it did not at any time reach  $103^{\circ}$ , the respirations all through were normal. The tumour which was removed was a large one, but there was nothing unusual in the operation. The patient had been greatly reduced, and was an extremely nervous woman, and he attributed the rapid pulse rate to the shock of the operation in a constitution considerably debilitated, and the temperature to nervous influence. After hysterectomy his own chief anxiety was the bowel, and with regard to temperature and pulse, not so much with either alone, as when both rose and continued above the normal.

The other card specimen he had was of interest in connection with a parovarian cyst and Fallopian tube, which he showed the Fellows some time ago, removed for pelvic peritonitis in a lady, who made an excellent recovery. In a subsequent pregnancy she suffered from albuminuric retinitis, and being in Scotland at the time came under the care of an oculist, who treated her for the albuminuria; there was, however, sudden hæmorrhage into the retinae of both eyes, and for a time she was practically blind. When she afterwards came up to London the vision of one eye was getting better, but that of the other eye was still much impaired. The ophthalmoscopic drawing showed the condition of the fundus of one eye when she was recovering, and an interesting sequel of retinal lesions in albuminuria during pregnancy. The patient was delivered of a fine healthy child at full term, and her vision had been gradually and completely restored.



M. TAYLOR. 12.2.01

Hæmorrhagic Interactions following on Albuminuric Retinitis  
during Pregnancy; v restored both eyes to  $\frac{4}{5}$ .

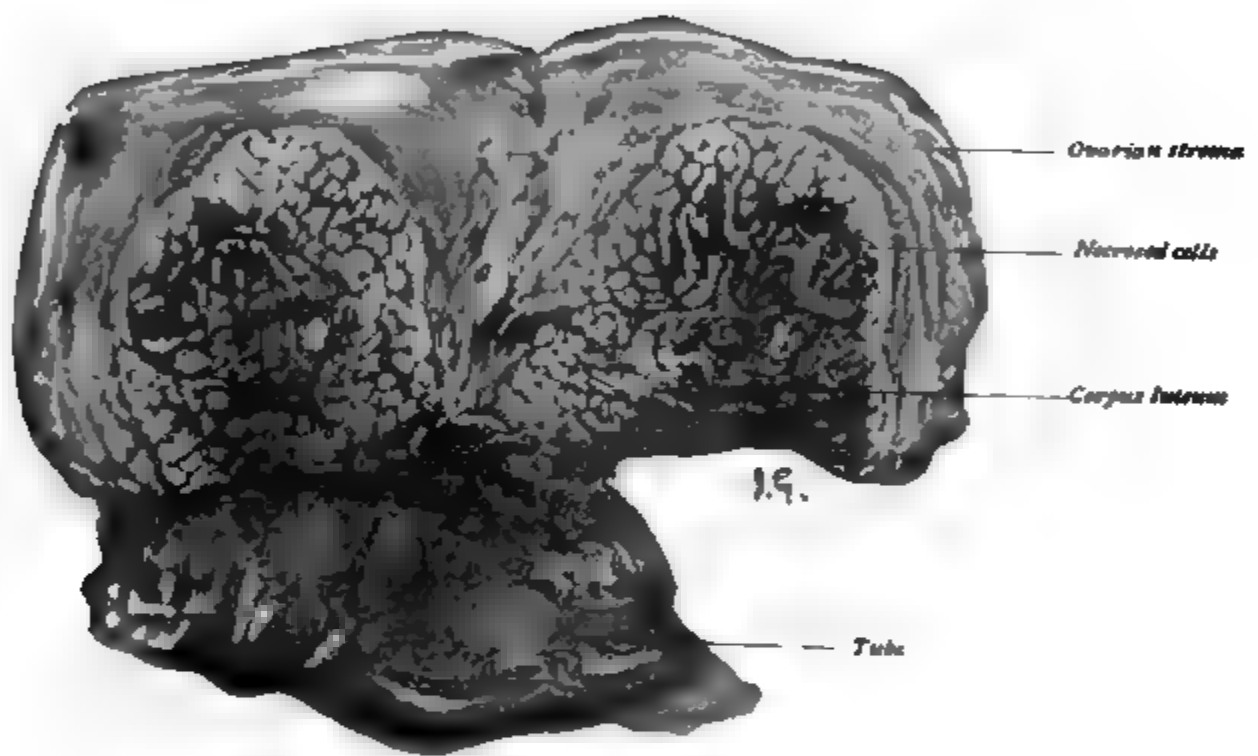
H. MACNAUGHTON JONES.



Dr. HALLIDAY CROOM read notes on a remarkable case of tubo-ovarian affection upon which he had recently operated. The history of the case was interesting owing to the unusual swinging temperature displayed. The patient was a married woman, aged 33, who had had two children. Her first labour and puerperium were quite normal. On July 22, 1901, her second child was born; on July 24 her temperature rose, and a regular well-marked sapræmia developed, with rigors and high temperature. This ran its course, and the patient was able to be up the last week of August. She was well till September 28, when she had a slight feverish attack (temperature  $101.6^{\circ}$ ) which passed off in twenty-four hours. On October 3 she travelled to Scotland, and on the 5th had a second attack similar to the above (temperature  $102^{\circ}$ ), passing in twenty-four hours. On October 12, a similar attack. October 17, there was a more serious attack (temperature  $104^{\circ}$ , pulse 144, distinct rigor), and from that day on patient remained in bed. I then saw her in consultation for the first time. On examination externally, there was a feeling of resistance to the left of mid-line. *Per vaginam*, a polypus protruded from the os, and swelling could absolutely be felt on the broad ligament, to left of uterus, without exudation or fixation, but with localised tenderness and pulsation. On examination of the chest there were no pulmonary complications to be found. I advised operation, which was not agreed to, and recourse was had to douching, blisters over the seat of pain, and rest in bed. From October 18 to 24, the temperature was normal, it then rose to  $102.5^{\circ}$  for a few hours; but from then up to November 4, highest temperature recorded was  $100.6^{\circ}$ . From this time on, however, till January 2, there was persistent evening rise between 6 and 8 o'clock, with the pulse seldom below 92. From her confinement the patient had never menstruated. I saw her again in February, 1902, when I found the uterus slightly enlarged, in normal position. To the left of the uterus and slightly adherent to it was a mass about the size of an ordinary Mandarin orange, between which and the uterus there was a well-marked sulcus. The swelling was tender and its

distal end movable; there was no exudation or fixation whatever, except at the edge of the uterine wall. Though, even under an anæsthetic, the diagnosis was a little obscure, I thought I had to deal with a pus tube; on subsequent operation I found this incorrect. A month later I was allowed to operate and found that there was no trace of a pyosalpinx, as I had expected, but a simple salpingitis. There was practically no fixation of the ovary and no exudation whatever, and the ovary and the tube were easily removed. The condition of the ovary, one which I have not hitherto seen, is illustrated in the accompanying plate, and is as follows:—There is a well-marked corpus luteum; there is very little, if any, active inflammatory change in the ovary itself, but there are evidences of it in the small foci of necrotic cells and proliferation round them, and in places the inner surface of the convoluted lining of the Graafian follicle appears to be irregular and broken down. At parts in the tube there is nothing to be found but sub-acute inflammation. The connective tissue round about and in the folds is oedematous, and numerous infiltrating cells are to be seen in the tissue spaces. There are absolutely no pus cells and few multi-nuclear leucocytes of any kind. No organisms of any kind by any method of staining can be discovered, and the interest of the case lies in the fact that there is so little histologically to account for the marked symptoms.

The patient made an uninterrupted recovery, but there is one more feature to which I would like to specially direct your attention, viz., the presence of hæmatemesis. Except peritonitis, there is no symptom to be more dreaded than hæmatemesis. Personally, I have usually, though not always, found it the precursor of death, and whether it have a septic origin or not, it is as a rule associated with sepsis. In the present case, the hæmatemesis was peculiar. When the patient was put in the Trendelenberg position I was told that she was bleeding from the nose, and in spite of the head being raised this bleeding continued. After the operation hæmatemesis, at intervals of three or four hours, came on,



**SECTION THROUGH OVARY AND TUBE**





and continued for twenty-four hours. There was increase of the pulse rate but no pyrexia. For twenty-four hours nothing was given by mouth, patient being nourished by nutrient enemata. On enquiry, I found the patient had suffered from hyperemesis gravidarum during her two pregnancies, and that during the two months she was confined to bed previous to her operation, her digestive system was very much upset.

Of course this symptom of hæmatemesis is not confined to abdominal cases, but has also been reported after operations for lithotomy and after operations in the rectum. In a number of cases where hæmatemesis occurred which I have taken from my note book, I find that eight out of ten died, and that the hæmatemesis continued from the end of the first forty-eight hours till death ensued. From my own cases I should be inclined to agree with the writer of a recent paper, who states that age has no influence on the incidence.

Many theories have been advanced. One is that it results from the administration of an anæsthetic, but considering the frequency with which anæsthetics are given and the comparative rarity of hæmatemesis, I think we may put this out of count. Again, it has been said that it is due to handling the stomach and duodenum, but in most of the cases occurring in my own experience the stomach and duodenum have not been interfered with. The theory of von Eiselsberg is that it is due to thrombosis of the omental vessels after ligature or injury, followed by embolism in the wall of the stomach and the formation of ulcers.

So far as my personal experience is concerned, I am disposed to think that most cases of hæmatemesis after abdominal operation are due to sepsis. Sepsis, we know, could produce congestion and small hæmorrhages in the mucous membrane, and whether sepsis be the actual cause or not, in my experience at least, the phenomenon was usually observed in cases which did ultimately succumb to sepsis in some form or other.

Whatever the cause, I have no hesitation in saying that, in abdominal sections at least, hæmatemesis is one of the most serious complications which can occur.

ON STONE IN THE FEMALE BLADDER. By P. J. FREYER, M.A., M.D., M.Ch., Lieut.-Col. I.M.S. (retired), Surgeon to St. Peter's Hospital.

MR. PRESIDENT AND GENTLEMEN,—An unmarried woman, aged 24, was sent to me in April, 1901, by Dr. Macnaughton-Jones with a diagnosis of stone in the bladder and vesico-vaginal fistula. For about a year previously she had suffered from increased frequency of micturition, pain in passing urine, and hæmaturia. Latterly, her symptoms had become much aggravated, and on admission to St. Peter's Hospital she was in a very miserable condition, being unable to retain her water for more than a quarter to half an hour, the pain and scalding being intense, and the urine thick, ammoniacal and extremely offensive. The vulva was swollen and raw from the constant passage of foul urine over the parts, as well as from leakage through a vesico-vaginal fistula.

On April 24, the patient being anæsthetised I performed litholapaxy. When the lithotrite was first introduced I failed to grasp the stone between the blades, though it was felt grating against the instrument. This was due to the shape of the stone, and its being fixed between the bladder walls, which felt contracted on it. I then distended the bladder with boracic lotion and re-introduced the lithotrite, when the stone was at once caught by its long axis, but, being about three inches long, the instrument failed to lock on it. The calculus was released and caught by its short axis, when it was rapidly crushed into fine *débris*, and evacuated by the aspirator through a No. 18 cannula, English scale. A large quantity of stinking muco-pus was also washed out. The *débris* when dried weighed 237 grains, and on examination it was found to be composed mainly of soft phosphates, interspersed with particles of a dark, hard substance. These, when collected, turned out to be the *débris* of a slate pencil, which formed the nucleus of the calculus. I questioned the lady in the most delicate and persuasive manner I was capable of as to how this foreign substance could have entered this region of the body, but the only way in which she could

account for the peculiar phenomenon was that in her childhood she might have swallowed the pencil! It was, I believe, one of the Georges who never could understand how the apple got into the dumpling. I leave it to you, gentlemen, who are much more intimate with the mysteries of the internal economy of the female sex than I am, to solve the problem as to how the pencil found its way into this woman's bladder.

The cystitis persisted for some time, necessitating the bladder being washed out daily by antiseptic and astringent lotions. On May 8, a fortnight after the operation, I made a cystoscopic examination, and found that the bladder was quite healthy, both ureteral orifices normal, and that there was a puckered scar on the left of the trigone, in front of the left ureteral orifice, indicating the position in which the fistula had existed. This fistula had evidently been produced by one end of the slate pencil, covered by phosphates, ulcerating through the bladder and vaginal walls, and had rapidly closed when the source of irritation had been removed.

Stone in the bladder is, as you are aware, much more rare in females than in males. This is due to the urethra in the female being short and dilatable, the absence of a prostate, and the rarity of stricture of the urethra, so that small calculi passing down from the kidneys are not so easily arrested in the bladder in females as they are in males.

Among 1,047 cases of stone in the bladder operated on by me, there were twenty-five females, or about 2·5 per cent. on the whole. Of these operations 861 were performed in India, seventeen being in females, or about 2 per cent., and 186 in England, with eight in females, or 4·3 per cent. From these statistics it might appear that the proportion of females to males afflicted with stone in the bladder in England is more than twice that in India. The disproportion I entirely attribute to the fact that in India the large majority of the female population is debarred through social prejudices from consulting a surgeon of the male sex.

Of these twenty-five operations for stone in females three occurred in my lithotomy days, before I commenced litholapaxy. These three occurred in children, and the calculi

were removed by rapid dilatation of the urethra. All these were successful so far as the operation is concerned; but, unfortunately, in one instance, in which the stone weighed four and a-half drachms, incontinence of urine resulted, I fear permanently. Since commencing Bigelow's operation twenty-two cases of stone in females (seven children and fifteen adults) have come under my treatment, and of these twenty-one have been treated by litholapaxy with entire success. The remaining case was that of a woman, aged 70. I attempted litholapaxy, but this stone, composed of uric acid and weighing two ounces, was so extremely hard that though it was easily grasped by this my largest lithotrite, No. 18, English scale, I could make no impression on it, though I used all the force of which I was capable. The stone in this case I successfully removed by vaginal lithotomy. With my present experience I should remove it suprapubically.

Litholapaxy in females is, as a rule, not a difficult proceeding, the instruments employed being the same as for males. Even quite young female children admit large lithotrites and cannulæ without any preliminary dilatation of the urethra. The only special difficulty met with is that, owing to the width and shortness of the urethral canal, the water which is necessary in the bladder during the crushing of the stone is liable to rush out beside the lithotrite. This difficulty is obviated by getting an assistant to place the fore and middle fingers of one hand in the vagina and to press the posterior lip of the urethra against the instrument, a manœuvre which prevents the water from flowing out. Litholapaxy in females is eminently successful, and the patient may be seen, as a rule, walking about a day or two after the operation. No forcible dilatation of the urethra being necessary, there is no incontinence of urine, that distressing sequel which sometimes follows the operation of dilatation. I have already referred to one such unhappy result in my own practice. Several similar cases from the practice of others have come under my notice since I commenced to practise in London.

One patient from whom I removed a calculus over an

ounce in weight, by litholapaxy, was seven months pregnant. The details of this case are interesting, so I will give them.

CASE.—M. C., a female, aged 25, admitted to the Moradabad Hospital, May 11, 1890, with symptoms of stone of one year's standing. Seven months gone in pregnancy. Great pain in the region of the bladder, which becomes so intolerable when she attempts to stand or walk that for three months she has had to keep lying down; this is evidently due to pressure of the gravid womb on the bladder, which contained a stone. When she desires to pass urine she has to insert her finger in the urethra and push back the stone from the neck of the bladder. Next day I performed litholapaxy. The stone was at once caught by my No. 15 lithotrite, which had to be three times inserted before the calculus was completely crushed and extracted. Cannula No. 18 was employed. *Débris* of the calculus, which I pass round, are mainly urates, and weigh 477 grains. Next day the patient was sitting up and walking about her room untroubled by any symptoms. Discharged cured on May 17.

This is a very interesting case, showing that litholapaxy can be performed in the last stages of pregnancy without the fear of causing a miscarriage. I hesitated at first about undertaking the operation till after the woman's confinement, but her miserable condition and the fear that the presence of a large stone in the bladder might greatly interfere with labour induced me to operate without delay.

In the discussion on Mr. Freyer's paper, Mr. FURNEAUX JORDAN spoke of the misery that sometimes followed forcible dilatation of the urethra in women from incontinence of urine, and expressed the opinion that when litholapaxy was not possible suprapubic or vaginal lithotomy should always be preferred to the extraction of a stone through the urethra.

Dr. SNOW asked Mr. Freyer if he had any special method, operative or otherwise, of treating incontinence when it did occur.

Dr. TRAVERS thought that the danger of incontinence after dilatation with the finger at all events, was not great; he had employed it in a very large number of cases, using

a Bryant's dilator till the little finger could be introduced, and had never had any troublesome incontinence, and hardly ever any for more than forty-eight hours.

Dr. MACNAUGHTON-JONES congratulated Mr. Freyer on the brilliant success of his treatment of the patient whose condition when transferred from his own to Mr. Freyer's care had been a very distressing one.

Mr. SPANTON showed (1) a mixed calculus, weighing 180 grains, removed entire from a girl, aged 5, by urethral dilatation. The operation was not followed by incontinence or any untoward result.

(2) Another calculus, weighing 70 grains, from a child, aged 3, removed in a similar manner, and followed by complete recovery.

(3) A piece of slate pencil removed from the bladder of a girl, aged 11, measuring over  $2\frac{1}{2}$  inches in length, each end of which was fixed in the bladder wall. Dilatation and forceps were employed. Recovery was immediate.

Such satisfactory results did not, he admitted, always follow dilatation, and future practice will no doubt lead to litholapaxy in most cases, and suprapubic lithotomy in the case of unusually large stones, as advocated by Mr. Freyer.

Mr. FREYER, in reply, said that he had not found it necessary to devise any special method of treating incontinence in his own practice. Mr. Spanton's cases and Dr. Travers' experience showed that incontinence did not at all necessarily follow forced dilatation, but incontinence when it did occur was such a dreadful affliction that he would certainly prefer suprapubic lithotomy where litholapaxy was impossible. The accumulations of which Dr. Travers had spoken might, he thought, be got rid of by washing the bladder out with suitable solvent and antiseptic injections. Operations in the bladder in phthisical women were to be avoided as far as possible.

## BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY, APRIL 10, 1902.

DR. J. HALLIDAY CROOM, PRESIDENT, IN THE CHAIR.

## CASES AND SPECIMENS.

MISCARRIAGE AND DIFFICULT LABOUR AFTER VENTRO-FIXATION; REMOVAL OF OVARIAN BLOOD CYST; EXTENSIVE ATTACHMENT OF THE UTERUS TO THE ABDOMINAL WALL. By H. MACNAUGHTON-JONES, M.D., &c.

The lady, aged 33, from whom the adnexa exhibited were removed, had been married for two years. The year before her marriage ventrofixation had been performed for bladder symptoms (pain, difficult micturition, and retention of urine), caused by a large and anteverted uterus. This relieved the pain and incontinence. She miscarried at five months after marriage. Labour at full term occurred in September, 1901. There was a difficult labour with some malposition, but a healthy male child was born. At the end of a fortnight she suffered from some puerperal symptoms, but these passed off, and the first catamenial period was normal. After this pain commenced in the right side and right leg, which was excessive at the periods, these being profuse with some intermediate discharge. This was followed by tenderness over the *left* side. On examination an adnexal tumour at the right side was found. At the operation a blood cyst of the ovary about the size of an orange was removed. The uterus was found firmly connected to the abdominal wall by a band of fascia about an inch in width. As after the previous operation, on the third day there were signs of an iodoform eruption, and the dressing was removed from the wound. The patient was subject to attacks of acute

rheumatism, and on the fourth day her temperature rose to 103°, and an attack of acute rheumatism supervened, attended by swelling and pain in her hands and body generally. Under full doses of salicylic this subsided, but there was a recrudescence on the ninth day. This also yielded to treatment, and the rest of the recovery was uninterrupted.

Dr. Macnaughton-Jones drew special attention to the fixation of the uterus, as indicating the danger of ventrofixation as compared with ventrosuspension, or Olshausen's operation (doubling the round ligaments and attaching them to the peritoneum and subperitoneal fascia) during the child-bearing period of life. Only in a limited class of case, and after a certain age, was ventrofixation the operation of selection. This was the first time he had ever an opportunity of seeing the exact condition of a ventrofixed uterus, and Mr. Ryall, who was present at the operation, remarked upon the complete and permanent fixation, strong bands uniting the uterus to the subperitoneal fascia. Notwithstanding this, the patient had been delivered of a strong living child at full term.

Dr. HEYWOOD SMITH asked whether there had been any stretching of the fixation adhesions such as Howard Kelly depicted in his book. He had been dissatisfied with the results of ventrofixation himself, as, though at first efficient, the adhesions had in one case stretched, and the retroflexion had recurred.

Mr. CHARLES RYALL said that though the uterus was intimately adherent to the abdominal wall over an area as large as a shilling, the fact that the woman had gone to full term and borne a healthy child was extremely interesting.

Dr. H. MACNAUGHTON-JONES, in reply, said he had never had a case of *ventrofixation* which he had done himself in which he had known the uterus to fall back. But in one case in which, as the patient was in the child-bearing period, he had, not very long ago, purposely done a ventrosuspension; he had, unfortunately, overlooked the fact that there was a rather pronounced tendency to cystocele and vaginal prolapse, and his ventrosuspension failed he thought on



account of the loose and heavy vagina dragging the uterus down again. That was the only case where he had been unfortunate in his results. He believed that if they disregarded the consequences of child-birth, in ventrofixation properly performed with three sutures, as he generally did it, they had a perfect cure for retroversion of the uterus, but on the other hand he did not think it an operation which ought to be performed during the child-bearing period.

The PRESIDENT said that though he had done the operation for retroversion, and still oftener for prolapse, he had met with reverses not only from subsequent pregnancy but also from recurrence, and was in sympathy with Dr. Heywood Smith as well as with Dr. Macnaughton-Jones.

COFFEE-GROUND VOMITING WITH HÆMATEMESIS AFTER  
HYSTERECTOMY. By H. MACNAUGHTON - JONES,  
M.D., &c.

In showing the tumour, which was a large multiple myoma with subperitoneal offshoots, Dr. Macnaughton-Jones said that the case was illustrative of the President's remarks made at the last meeting on the almost universally fatal nature of this class of vomiting. The following were brief notes of the case : —

The patient was a woman,, aged 41, unmarried. Her general health had been for some time steadily declining from the combined causes of pain and hæmorrhage. She was not in independent circumstances, and had to work for her support.

She was the youngest of three sisters, and it was noteworthy that the two elder ones had died a few days after their first labours from what the relatives informed me the medical men in attendance had described as "sudden death," and this fact had deterred my patient from marriage.

The operation, myo-hysterectomy, was completed without any accident, and was practically bloodless. There was a large portion of omentum adherent to the anterior surface of the tumour. On the day of operation there was nothing special to remark. At 6 o'clock her temperature rose to

100°, and her pulse was 96. Her respirations were 28 per minute. She did not complain of much pain, and had some hours' sleep that night. In fact, all through she complained but little of any abdominal pain, and there was no abdominal distension until some hours before death, as she passed flatus from the bowel freely. On the morning of the second day the pulse was 96, the temperature 101·6°, and she complained of some cardiac distress and palpitation. Her temperature at 10 p.m. this day was 100·1°. The note taken at 9.20 p.m. on the second day was, "patient had a comfortable day, headache better, no palpitation, no sickness." At 9 o'clock the following morning the report was, "Passed flatus per rectum, had a comfortable night, sleeping in all nine hours." The temperature at 6 a.m. was 99·4°, and the pulse 96; respirations 20. At 10 a.m. her temperature was 99·8°, her pulse 98, her respirations 22, and she had passed a total of 28 ounces of urine in the twenty-four hours. Up to this time she had been taking nothing save hot water, barley water and milk, some weak tea with milk, and some Brand's and Valentine's essences. Altogether she had had two hypodermic injections of morphia. Her first complaint of any feeling of sickness was at 6 p.m. on the evening of the third day. That night she had two grains of calomel. She was still passing a quantity of flatus by the rectum. She did not have a comfortable night, and complained a good deal of thirst. At 2 a.m. her temperature was 99·4°, and 99·1° at 6 a.m. When it was taken at 10 o'clock it was subnormal, 97°. The pulse had been steadily rising for the twelve previous hours, and with the fall of temperature had risen from 112 to 136. At the same time she vomited a quantity of typical coffee-ground matter. Strychnine injections and nutrient enemata were resorted to, but the vomiting continued, the pulse becoming more rapid and very feeble. Saline infra-mammary injections were given, and digitalis by the bowel. Thinking there might be some adhesions with the divided omentum, I determined to open the wound. This I did at 3 p.m., but found nothing either in the wound or the appearance of the bowel to account for her condition. She died shortly after.

A distinguished gynæcologist had spoken of some operators as hysterectomy-mongers. This case, however, did not come within the class which gave rise to that expression, for this operation was done gratuitously for a woman who was earning her own bread. It was absolutely necessary, for she was becoming exhausted by hæmorrhage and was extremely ill.

On carefully reviewing the operation there was no point in regard to which he could impute to himself any neglect, nor any circumstance before, during, or after its performance, to which he could attribute the fatal result.

The PRESIDENT said that he was very sorry Dr. Macnaughton-Jones should have so soon experienced this coffee-ground vomit. The case he himself had referred to the other night was exceptional, and did not come under the ordinary category. Notwithstanding Dr. Macnaughton-Jones' convictions and the great care with which the operation had been performed, he had no hesitation in repeating that he had never seen a case of coffee-ground vomit end fatally which was not the immediate result of septicæmia in some shape or form, and he could only suppose the same cause in this case.

The Chair having been taken by Dr. HEYWOOD SMITH, a Vice-President, the following paper was read:—

ON THE CLINICAL FEATURES AND POST-MORTEM APPEARANCES OF A CASE OF DECIDUOMA MALIGNUM. By J. HALLIDAY CROOM, M.D., P.R.C.S.E., F.R.C.P.E., F.R.S.E., &c., Consulting Gynæcologist, Royal Infirmary, Edinburgh.

I venture to bring this paper before you, not because I believe that I can add anything to the existing knowledge of the subject, but rather because I trust that I shall be able to illustrate some points in its clinical features and pathological aspect, by a case that has come under my observation.

The subject of deciduoma malignum has already been discussed in the Society at length in consequence of a most valuable paper written by my friend and colleague, Dr. Haultain; and the views he propounded then seem gradually

to have gained acceptance. Since the subject was first broached by Saenger, the literature has been gradually accumulating to a very large extent, yet in its secondary manifestations, and in the infrequency of its occurrence, there is still a wide field for further study. As to its exact nature—though the subject has been copiously discussed—it cannot be said that its pathology has yet been absolutely decided. The contention of one party, that it is a sarcoma, as held by teachers in the Metropolis here as well as in this Society, has been, I think, to a very great extent discarded; and I believe that by far the greater consensus of opinion is in favour of its being epitheliomatous, the result of a pregnancy, and originating from the coverings of the villi.

The cases which have been recorded present great similarity in their clinical features. There is generally, in a patient of the age of 30 or thereby, the history of profuse bleedings following abortion or ordinary labour, and in 60 per cent. of cases following myxoma of the chorion, the hæmorrhage being succeeded by foul smelling discharges and the evacuation of masses of blood clot and shreddy tissue from the uterus. Metastatic deposits in the vagina, in the lungs, in the brain, &c., commonly lead to death in cases where prompt extirpation of the uterus is not had recourse to. There is very marked cachexia, and so rapid a progress of symptoms that the whole history of the case, from the first observation of any abnormal condition to the death of the patient from lung or other secondary complications, may not occupy a longer period than a few months or even weeks. There is, as a rule, no great difficulty in recognising the condition, and there is only one possible method of treatment, namely, early extirpation of the uterus. But where the difficulty arises is in relegating the disease to its true place in pathology, and here there are nearly as many theories advanced as there have been observers.

SAENGER believed the growth to be from decidua cells, hence his name for it—*Deciduoma Malignum*.

GOTTSCHALK advanced the hypothesis that malignant degeneration of the stroma of the chorionic villi produced the condition, which he named "*Sarcoma chorio-cellulare*."

FRAENKEL considered the sole origin of the tumour to be from the epithelium covering the villi, and that it was therefore a carcinoma.

GEBHARD believes the growth to be a mixed carcinoma of maternal and foetal structures.

MARCHAND, whose work on this subject is extremely valuable, advanced in 1895 a view which is still, I think, generally recognised to be the true one regarding the origin of the condition. Briefly, he holds that the tumour arises from both the kinds of tissue composing the epithelial layers of the villi, namely syncytium and Langhans' cells, which undergo a malignant degeneration and proliferation, resulting, in the case of the syncytium, in the formation of large cells with large nuclei, polynucleated protoplasmic masses or giant cells, and multinucleated trabecular protoplasmic structures surrounded by blood spaces; while the Langhans' cells become polyhedral clear cells, smaller than the giant cells. He also believes that the metastases form by way of the blood vessels, and that decidua cells take no part in the growth.

The three observers, last named, thus appear to agree regarding the natural character of the growth as epithelial, and differ merely upon the yet debatable ground of the origin of the syncytium from foetal or maternal structure.

Marchand's teaching is entirely supported by the work of Haultain, whose views, which he very carefully and fully laid before this Society in 1899, are essentially the same as those held by the very latest writers on the subject. The difference of opinion between Marchand and the earlier observers probably arose from the fact that Marchand was the first observer to find villi in a case of this kind. The presence of villi was afterwards demonstrated by Haultain in a case which conclusively proved the origin of the proliferating cells to be from their epithelial covering. In the current number of the *American Journal of Obstetrics*, there is an elaborate and careful discussion of the whole subject, by Dr. Pierce of Chicago, but his conclusions only confirm what we learned of the subject in 1899.

If its origin from the chorionic villi be accepted, deciduoma

forms a unique growth of a parasitic nature and, necessarily, can only arise after pregnancy. So far, this cannot be contradicted, no case having yet been described without a previous pregnancy, which is not open to objection.

An interesting feature connected with the origin of the growth is the great frequency with which it follows myxoma of the chorion. This, however, is only to be expected when we remember that this so-called chorionic degeneration is in reality due to an intense proliferation of villous epithelium. The mere fact of deciduoma being so often a sequela of vesicular mole is therefore one of the strongest proofs of its epithelial origin; it is merely a maintenance of the usual epithelial proliferation found in that condition.

In the majority of cases the area of active growth is situated superficially in the uterine cavity and then forms a tumour which bulges into that cavity. On section, the growth presents the appearance of placental tissue, being mainly composed of blood clot, but on microscopic examination it shows the characteristic multinucleated granular masses and large nucleated cells derived from the syncytium and Langhans' layer of the villi respectively. If the area of origin be found, it will probably show chorionic villi whose epithelial coverings are in an intense state of proliferative activity.

The case to which I specially refer was as follows. The patient was admitted to my ward in the Royal Infirmary, Edinburgh, on June 14, 1898. Her age was 44. She had had five children, the last in August, 1892. She had also had two miscarriages, one between the birth of the first and second child, and the last six years before her admission. Her menstruation had been quite regular every twenty-eight days, lasting six or seven. She had not menstruated since February, 1898 until the end of May, and was under the impression that her change in life had arrived, especially as her recent periods had been associated with more severe hæmorrhage than usual. There had been some intermenstrual leucorrhœa of an offensive character. She had observed a swelling of her lower abdomen, but she had only

noticed it a few weeks before she came to the Infirmary. Except leucorrhœa, there was no discharge of any kind. She had complained from time to time, recently, of attacks of pain.

The woman was extremely emaciated, and on examination I found, stretching up to midway between the pubis and umbilicus, a tumour, hard, firm and consistent, which, from the history and nature of the case, I took to be a rapidly growing sarcoma. I observed on the left labium a small tumour, about the size of a walnut, situated in the region of the Bartholin's gland on the left side. This I took to be an ordinary retention cyst in the Bartholinian duct, and, as it gave her considerable pain, opened it before doing anything to the larger tumour, and was surprised to find that it was not a Bartholinian cyst at all, but a solid mass, which could only be enucleated with difficulty, and was of a structure unknown to me. This very peculiar tissue was subjected to microscopic examination and, as it presented appearances similar to those of deciduoma malignum, I was led to alter my opinion with regard to the uterine tumour and determined to operate without delay. Unfortunately the patient sank very rapidly, lung complications having set in, and died before it was possible to do so.

In its clinical history this case, you will perceive, is somewhat different from those already described. First of all, the patient was beyond the average age of women the subjects of deciduoma, for though these tumours have been met with between the limits of 17 and 55, the mean age of their occurrence is 33. This woman was 44.

As to the question of the age incidence: deciduoma may occur at any stage of a woman's reproductive life; in the cases collated by McKenna, the youngest was 17 and the oldest 54. Its occurrence is most frequent in the second decennium of the reproductive cycle. The figures fall off considerably both at the beginning and at the end of reproductive life. It is most instructive therefore to observe that these tumours develop just at that period of a woman's life when conception is most frequent, and this is just the very opposite of what we find in sarcoma, for sarcoma is compara-



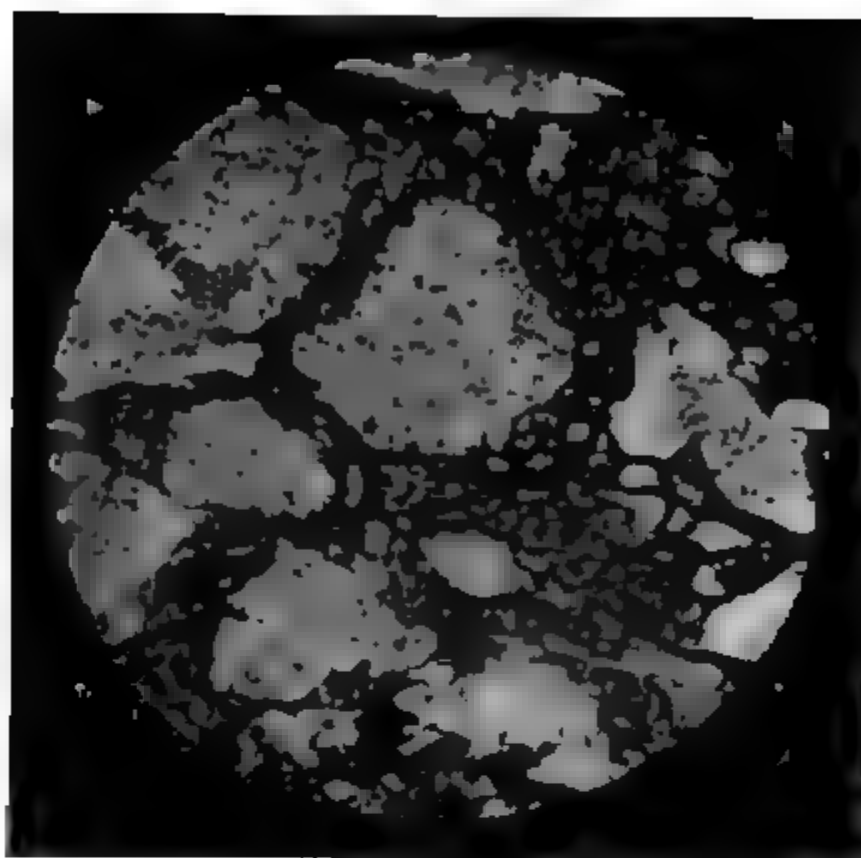
tively rare under 35, and most common between 40 and 60. As has been very well remarked by McKenna, too much attention has perhaps been paid to the microscopic character of the tumour cells and too little to the age incidence of the tumour.

Again, it must be noted that in this particular instance, the affection did not occur, as it usually does, immediately after pregnancy, the last recognised pregnancy having ended in abortion six years previously. This is a rather curious and interesting fact, for, in the recorded cases, it has been shown conclusively that this disease—deciduoma malignum, or by whatever name it is known—occurs in distinct relation to pregnancy, and very often in connection with a myxoma of the chorion. So far as I am aware, no case has been recorded in which the interval between pregnancy and the occurrence of the tumour has been so prolonged as in the one before us to-night. The rapid development of this tumour, six years after a recognised pregnancy, rendered the diagnosis of deciduoma malignum most unlikely, and it is difficult to see what relation there could be, if any, between the last recognised pregnancy and the development in the uterus of a tumour containing any of the elements of pregnancy whatever.

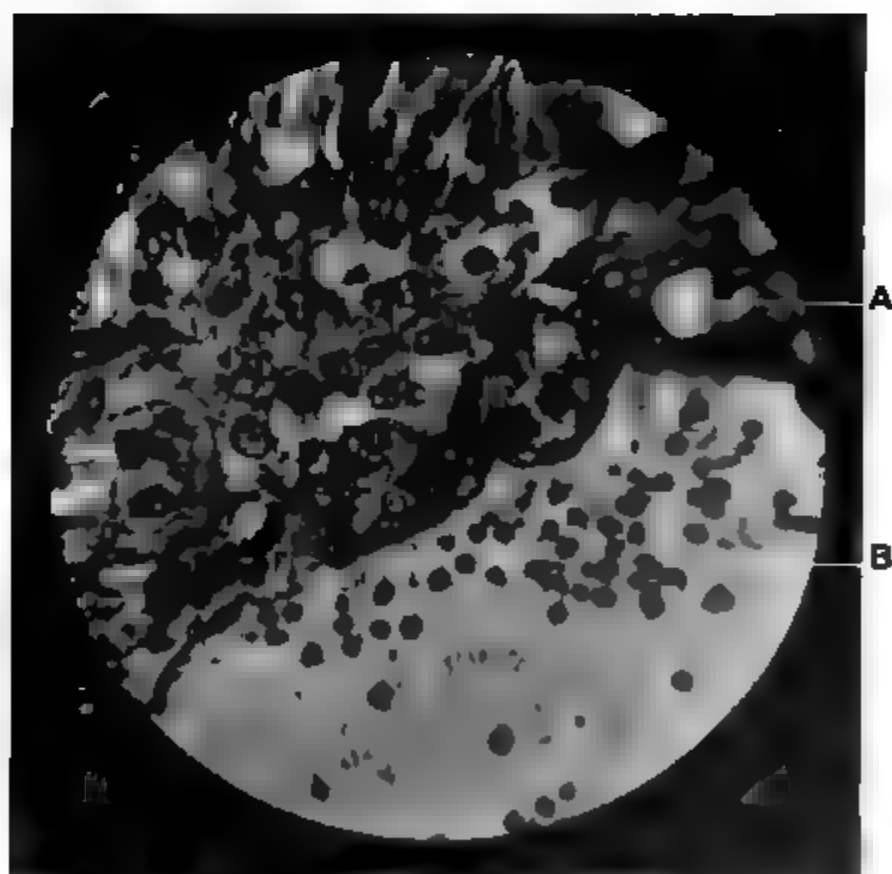
In the recorded cases, the average time of the occurrence of one of these tumours after labour has been 6·9 weeks, after abortion 11·4 weeks, and after myxoma 10·0 weeks. In two instances only, so far as my knowledge goes, has there been anything approaching to so long an interval between pregnancy and the growth of the deciduoma malignum as in my case; these were the cases recorded by Hollmann and Löhlein, and both occurred after myxoma. In Hollmann's case, there was four years' interval and, in Löhlein's case, two years' interval. As McKenna has pointed out, if these were true cases of syncytium malignum, there must either have been some interrupted and unsuspected gestation between the time when the hydatid mole was expelled and that when the malignant neoplasm was observed; or remnants of myxoma must be capable of setting up malignant processes after a very long period of latency.



**SECTION OF TUMOUR.**



**Low power,  $\times 70$ .**



**High power,  $\times 250$ .**

- A**—Typical tumour cells (some dividing).  
**B**—Fibrin, with blood cells.



It must be noted that in my case the last recognised pregnancy, six years previously, was not a myxoma but an ordinary miscarriage. I admit that it is very difficult to see how the products of pregnancy could have remained so long latent and then have ultimately become active and developed this tumour. The only alternative left is to suppose that the sudden amenorrhœa in February was the result of conception, although one would have expected, as is usual in such cases, a hæmorrhage and an attempt at abortion, and no such symptom appeared. It is the fact that in the uterus no signs of pregnancy beyond the characteristic cells of the deciduoma malignum were found.

A further point which seems to me of extreme interest in this case is that, from the commencement of her amenorrhœa until the day she died, the patient had no hæmorrhage whatever. Now, so far as my reading goes, hæmorrhage has been the characteristic feature and the first symptom in almost every case of deciduoma malignum, beginning, sometimes as soon as six weeks, and sometimes as late as two years, after delivery, the usual period being about six weeks. I have found no cases of this kind unassociated with hæmorrhage, except two.

Saenger's case was somewhat exceptional in this way. There was hæmorrhage so long as the abortion preceding the tumour was incomplete, but after the development of the tumour there never was any during its subsequent growth. In a case recorded by Bruce also, there was a similar absence of hæmorrhage. But, as a rule almost without exception, hæmorrhage is a characteristic feature, and the hæmorrhages are usually profuse, resembling those floodings which accompany abortion. They are also, as a rule, intermittent, but so abundant and frequent as to cause profound anæmia. In my own case, though there never was a trace of hæmorrhage of any kind, the patient was profoundly anæmic and cachectic.

The only discharge which was at all characteristic of deciduoma malignum was a bad smelling leucorrhœa, which was rather of a watery nature, suggesting rather an ordinary malignant disease of the uterus than deciduoma malignum.

The passing of a sound showed the cavity of the uterus to be enlarged, and the sound felt as if it touched friable matter ; on its removal, however, there was only the very slightest discharge of blood.

The short duration of the illness was quite in keeping with the character of the disease, because from the menstrual cessation in February, which was obviously the starting point of the illness, till her death in June, was only six months, and this is not an unusual duration for the disease.

Metastatic deposits in the labia have of course been already described in other recorded cases.

*As to Diagnosis and Treatment.*—Should the seat of origin be superficial, early symptoms of profuse hæmorrhage following the expulsion of the ovum will be present and thus closely simulate an ordinary imperfect abortion. From the early disintegration of the new growth a sanious discharge soon appears, followed by extreme cachexia, from the absorption of the toxins of decomposition, and, in default of timely operation, the patient rapidly succumbs from exhaustion, should she not already have become a victim to metastases in the lungs, brain or indeed any of the vital organs.

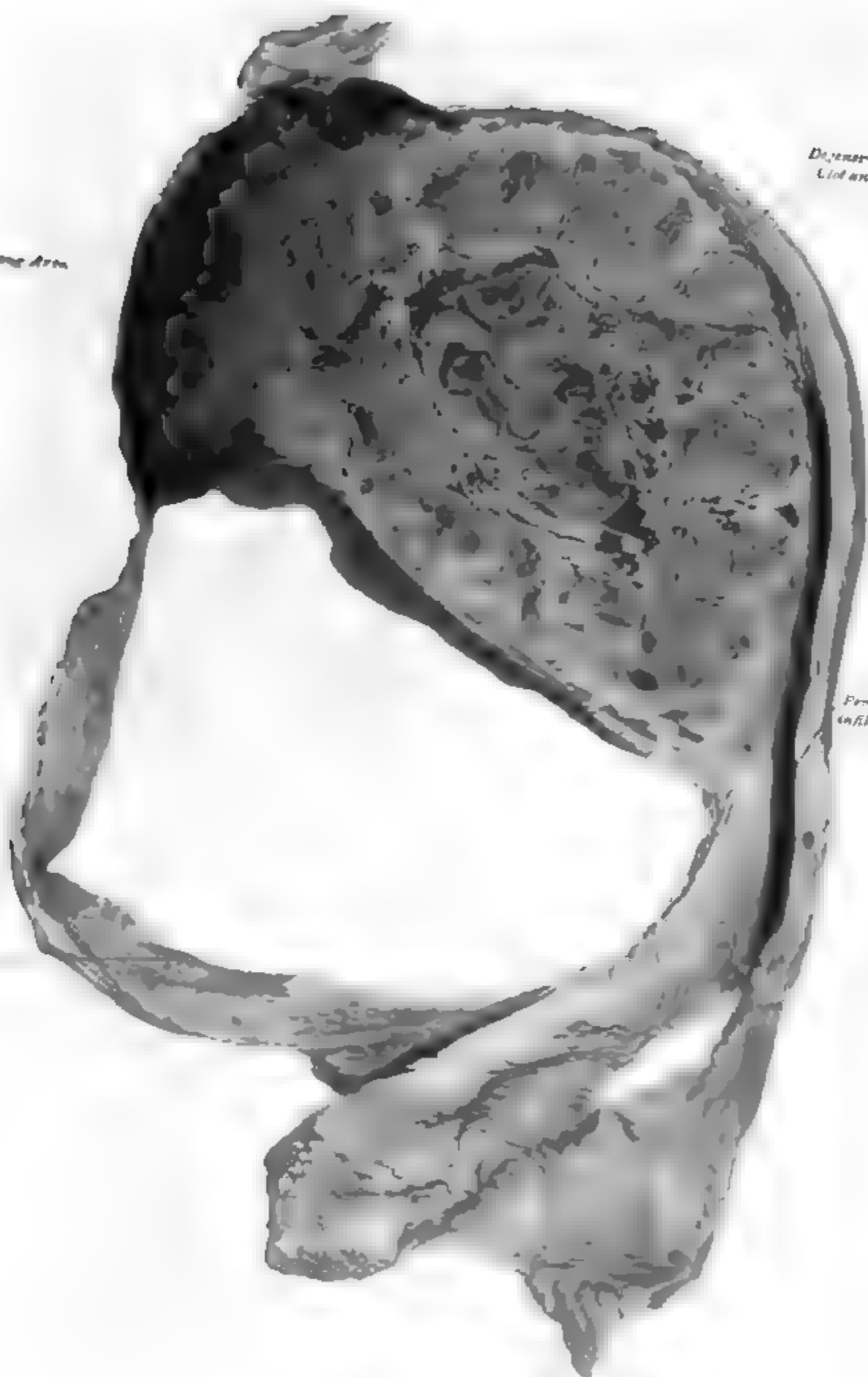
Unfortunately in a small number of cases the primary area of active growth is deep in the uterine wall where a malignant proliferating villus has travelled ; indeed sometimes the apparently initial growth may be found outside of the uterus, as in the vagina, ovary or other organ, owing to the migration of such a proliferating villus. In these cases the symptoms of uterine hæmorrhage are naturally absent, and the first indication of the disease may be due to metastatic foci in the lung or brain. In this latter type of case early diagnosis is impossible, and in many instances the truth is first known on the *post-mortem* table.

When, as in the majority of instances, uterine hæmorrhage is present, an early diagnosis can be made. The disease should be suspected if bleeding follow the expulsion of a vesicular mole, or return after curettage for imperfect expulsion of the ovum. In these instances the uterine cavity

Degenerating  
Cist and Fe

Foci of  
infiltration

Tracing Area



SECTION OF TUMOUR, INCLUDING CYST.

End 200x

200x



should be thoroughly explored by the finger, and scrapings carefully examined microscopically.

When scrapings from a simple curettage are examined after the expulsion of a vesicular mole, the mere presence of masses of multinucleated trabecular and solid protoplasm with chorionic villi cannot be considered a sufficient indication of the presence of the disease so as to warrant vaginal hysterectomy, as such appearances may be present from the retention of normal vesicular villi. Should the disease be malignant, the profuse character of the bleeding during the scraping of the uterus will form a far more valuable indication of the disease, and may be corroborated by the microscopic appearances presented.

From the intense malignancy of the disease, early detection is most essential for a possibility of cure. It cannot be too strongly stated that repeated curettings without digital examination of the uterine cavity after imperfect abortion are to be avoided; at the same time, it is well to make it a rule to have all scrapings removed from a bleeding uterine cavity examined microscopically. The ease with which an expert opinion can now be got leaves no extenuating circumstances, should the disease be only diagnosed after months of hæmorrhage and when any hope of cure is out of the question.

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In illustration of the case the President showed the following specimens:—

- (1) Half the tumour, showing uterus, cyst and deciduoma.
- (2) Portion of the lung with secondary deposit.
- (3) Section of the tumour mounted on glass.
- (4) Section of the lung with large metastatic deposit.
- (5) A similar section with several smaller deposits, and the following microscopic slides:—(i.) Characteristic cells in the area of active growth of the tumour; (ii.) Centre of the tumour with mass of fibrin; (iii.) Section from nodule on the uterus, with actively proliferating cells; (iv.) Section from secondary deposit in the vagina.

#### POST-MORTEM REPORT OF THE CASE.

By DR. WELSH, Pathologist, Royal Infirmary.

[The report of the autopsy is given in detail, but the condition of the pelvis and the mass removed from it has, for convenience, been placed first.]

*Abdomen.*—There was no ascites and no evidence of any acute peritonitis; only chronic adhesions in certain places. The anterior abdominal wall, from a point about 2 in. below umbilicus downwards to pubis, was firmly adherent to a large nodular tumour mass growing up from the pelvis. To this mass also coils of ilium were firmly adherent in two places, one near middle line, and the other towards the left margin of tumour. There were practically no adhesions between the tumour mass and any structures behind it, for the rectum passed down quite freely to the anus, and the ovary on each side was lying quite free. The pouch of Douglas was intact.

*Pelvis.*—The pelvis was completely occupied by a large nodular mass which passed upwards into the abdominal cavity, to within two inches of umbilicus in middle line, and rather higher on the left side than on the right. The upper surface of this mass was thrown into large irregular nodules of uniform soft consistence, and apparently composed of necrotic tumour tissue and recent hæmorrhage. The posterior surface was comparatively smooth and non-adherent, and the rectum and ovaries were lying quite free behind it; laterally it reached out to both sides of pelvis, to which it was firmly adherent. Anteriorly the bladder was healthy, empty, and adherent to the front of the mass. Extending above the bladder and between it and the uterus there was a large cyst filled with fluid. The tumour proper was infiltrating and expanding the fundus of the uterus.

The weight of this mass, 7 lb. 7 oz.; the maximum vertical length,  $10\frac{1}{2}$  in.; maximum transverse breadth, 9 in.

On removing the mass a small soft hæmorrhagic nodule, about 1 in. in diameter, was found on the left side of the upper vaginal wall.

The mass removed consisted of three portions formed by the bladder, the uterus with the tumour, and a cyst lying between the other two. (1) The bladder was completely adherent to, and was stretched up over the front of the cystic portion posterior to it. The length from urethra to the summit was 5 in.

(2) The cystic portion lay between the bladder which formed its anterior wall, and the tumour and uterus which formed its posterior wall. The cyst was completed above by a thick membranous structure  $3\frac{1}{4}$  in. long, which bridged the space between the front and upper part of the tumour and the upper end of the bladder.

The lower portion of the posterior wall of the cyst was formed by the anterior aspect of the cervix. Its lowest point







OF TUMOUR.





lay exactly at the os externum, but separated from the anterior vaginal fornix by the bladder. The general site of the cyst was in the pouch of Retzius, or in the cellular tissue between bladder and cervix with peritoneum as its roof. Its walls were composed of a thin white tough membrane, which, where the bladder was contiguous to it, could be separated off the bladder wall, there being a little loose cellular tissue joining them together. At the upper portion the reddish purple structure of the tumour could be seen shining through the posterior wall. The lower part of this wall lying in front of the cervix (see *ante*) was free of tumour formation. There were one or two hæmorrhages into wall of cyst, which contained a bloody serous fluid under considerable tension, as it spurted out on incision. The length of the cyst from its upper end (the bridge of membrane  $3\frac{1}{4}$  in. long) to lower end (at level of external os) was 6 in., its breadth (from tumour posteriorly to bladder in front)  $3\frac{1}{4}$  in.

(3) Uterus and tumour: the cervix, unaffected by the deciduoma malignum, was 2 in. in length. The body of the uterus measured 6 in. from external os to the summit of the tumour, 4 in. from back to front, and  $4\frac{3}{4}$  in. from side to side. The cavity of the body,  $3\frac{1}{2}$  in. in length, did not extend nearly to the summit; its antero-posterior breadth was  $\frac{1}{4}$  in.; the posterior wall was  $\frac{5}{8}$  in. thick and  $3\frac{1}{2}$  in. long. The new formation affected the anterior wall and fundus. Its shape was irregularly pyriform, its consistence firm, its length 6 in., its breadth 4 in.; it extended from internal os to the summit of the whole uterine mass, and at the summit was adherent to the small intestine. Behind and to the left were the left ovary and tube, situated on a short pedicle of broad ligament  $1\frac{3}{4}$  in. from the middle line of the uterus posteriorly. The rest of the broad ligament was taken up by the tumour. On the extreme left the tumour was adherent to the descending colon. Anteriorly and to the left of the middle line the tumour was hummocky, and showed reddish purple hæmorrhagic areas. On section it was firm, brittle, and showed in its centre a limited spherical portion  $1\frac{1}{2}$  in. in diameter separated by a trench from the rest and apparently necrotic. Elsewhere the structure of the growth was red and spongy, hæmorrhagic looking.

The remainder of the Report was as follows:—

The body exhibited considerable emaciation; rigidity in lower limbs only. The abdominal tumour was especially prominent below umbilicus; walls loose and flacid. P. M. discoloration.

*Thorax.*—The pericardium contained about 5 oz. of serous fluid. No evidence of inflammation or new growth.

*Pleuræ.*—No apparent change in the pleura on either side. The left contained 35 oz. of deeply and the right about 2 oz. of slightly blood-stained fluid.

*Heart.*—Weight  $9\frac{1}{2}$  oz. Chambers of right side occupied by *ante mortem* clot.

*Valves.*—Arterial valves competent. Pulmonary, 0·1; aortic, 0·9; mitral, 1·25; 1·45. Slight chronic thickening along the attachment of the aortic segments; the other valves healthy; some patches of fatty degeneration, and slight atheroma of the aorta.

*Left Ventricle.*—Slightly dilated. Walls thin, muscle warped, flabby and showed some anæmia and fatty changes. There were several minute foci of recent hæmorrhages grouped together just beneath endocardium on posterior surface of left ventricle near the auriculo-ventricular groove.

*Other chambers* practically normal.

*Left Lung.*—2 lb. 7 oz. Very adherent along its posterior border. Greatly collapsed and compressed up against the root. The very irregular surface showed numerous nodules projecting and raised above general surface. The nodules varied in size up to 2 in. in diameter, and were covered externally by a thin reticulated layer of fibrin, which had a bright red colour from dilated vessels and hæmorrhages just beneath it. On section, many large nodules were found in lung substance, but the greatest mass was towards root of lower lobe, where several appeared to have run together. The upper lobe was greatly collapsed between the pressure of fluid in pleura and this mass of new growth at root of lower lobe. In section the nodules were of uniform and somewhat soft consistence, mottled pink colour with irregular patches of hæmorrhages and very largely necrotic.

*Right Lung.*—1 lb. 13 oz. No adhesions. Also showed nodules of similar character, more numerous, but smaller, the largest only about 1 in. in diameter, much less elevated above surface and less depressed in centre, each covered with thin layer of fibrin which was only slightly reddened. On section many similar nodules throughout the lung tissue, which was anæmic and collapsed, but to less extent than the left lung.

*Liver.*—4 lb. 11 oz. The gall bladder contained dark orange bile, no calculi; biliary passages quite healthy. On section, the liver tissue showed some venous congestion, but no evidence of any malignant disease.

*Spleen.*—7 oz. Very pale, soft and diffuent; no sign of new growth.

*Kidneys.*—Left 8 oz., right 6 oz. Both very anæmic with fatty changes in the tubules of the cortex. The left in addition showed a few hæmorrhagic nodular and wedge-shaped areas in superficial cortex, very ill defined and indefinite, probably early infarcti due to emboli from the new growth. Some of these found in right kidney.

*Stomach, Intestines and Rectum.*—Showed no gross lesion apart from adhesions above noted, and also a small diverticulum about 2 in. long in ileum about  $4\frac{1}{2}$  ft. from ileo-cæcal valve.

*Brain.*—3 lb. 1 oz. There was a small soft nodule about  $\frac{1}{4}$  in. in diameter, superficially and extending about  $\frac{3}{16}$  in. into cerebral cortex occupying the middle mater on its inner surface showed an area of similar superficial extent covered by a thin layer of hæmorrhage and softened tissue. About an inch or more behind this there were several small hæmorrhagic points on inner surface of dura, but though the whole encephalon was carefully cut up no other gross lesion was detected.

Dr. HEYWOOD SMITH (in the Chair) said that the chief points suggested by the very instructive paper for which they had to thank their President, and which might be further elucidated by discussion were, the prospects of those affected with this disease, its clinical aspects, and especially those present before the aid of the microscope was available, whether an offensive discharge during or after pregnancy should suggest its presence; how we could distinguish between this disease and carcinoma of the body of the uterus; and generally its differential diagnosis from other forms of malignant disease. Metastatic deposits undoubtedly occurred very early, but we were uninformed as to how soon after impregnation the primary growth might develop. Above all, what were the direct indications for interference? It was a point worth notice that in the case related not only had hæmorrhage been absent but that the introduction of the sound, though it touched friable tissue, caused no appreciable loss of blood as it would have done in carcinoma of the body.

Dr. HERBERT SNOW said that there could be no two

opinions as to the debt the Society owed to the President for the interesting and suggestive paper which had been read to them that night. He could not speak from actual acquaintance with deciduoma malignum. He only knew the subject from the rather voluminous literature which had accumulated on the subject, and continued daily to increase. Reference had been made to the protoplasmic "cells" which had been described as characteristic. It was the first time that he had heard that any particular "cells" (*i.e.*, cells as distinguished from cell-masses) were characteristic of this disease. One could not discern from the diagram on the board that the cells there represented were in any way different from what one found in ordinary myxoma as shown in an illustration drawn by himself and published in his "Treatise on Cancer." Those branching cells with their nuclei were a symptom of the growth of connective tissue which, as in myxoma, was secondarily connected with a diffuse mucoid infiltration. That was the most important point in the address that personally he would like to have cleared up. The President deprecated repeated curetting of the patient, and with that he heartily agreed. But Dr. Croom further said that when you curetted a uterus of this supposed condition, you must submit the pieces taken away to microscopical examination. On that point he would like to ask him if his attention had been drawn to the paper read by Professor A. H. Young before the British Medical Association in 1895,\* in which attention had been drawn to the extraordinary similarity between the natural process of placental formation and the features of microscopic malignant growth. Professor Young pointed out that the phenomena of epithelial proliferation and invasion of surrounding tissue in the natural process of placenta-formation were extraordinarily similar to what one would expect to find in carcinoma. This pregnant fact emphasised the danger of implicit reliance on microscopic phenomena *per se*.

The case related by the President was certainly unique

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\* "On the Development and Structure of the Placenta," *Brit. Med. Journ.*, November 30, 1895.



in the remarkable interval that had elapsed between the pregnancy and the supposed malignant development, for he understood there was no suspicion of impregnation having taken place within six years previously. He thought this point distinguished it from all cases which had gone before. Schauta, however, had discriminated (*Centralb. f. Gyn.*, ix., 1895) three forms of deciduoma malignum, one due to the epithelium of the chorionic villi, one to the connective tissue, and a third to a decidual relic, which last might be perhaps of indefinite age.

Lastly, he would recall the interesting discussion which had taken place before the Society on a paper by Dr. Haultain, read in June, 1899, in which they had the advantage of the presence of Dr. Duncan and various other distinguished visitors. The general conclusion come to on that occasion was that it was extremely doubtful in deciduoma malignum whether there was any real malignant growth worthy of the name as set apart from the ordinary developments of malignancy in the uterus. The President had alluded to the point whether some of these cases might not be a subsequent development in the wall of the uterus of that which had begun *before* the pregnancy and continued through it. A case had been reported by Miss Julia Cock (*Brit. Med. Journ.*, December 26, 1896), which seemed susceptible of that explanation.

The question was whether Dr. Croom considered that deciduoma malignum had really been put into such a position by the writings and researches of Marchand and others that one could say, "Here is a definite example of malignant disease which is totally distinct from the ordinary forms of uterine malignant disease such as carcinoma, sarcoma, or myosarcoma." Whether they could regard the cases reported as indicating more than the general fact, previously well known, that pregnancy and parturition, or abortion, are very prone to be followed by malignant uterine developments, most often cervical, less frequently attacking the body of the organ; sometimes of one cancer species, sometimes of another.

Dr. MACNAUGHTON-JONES pointed out that fourteen

years before Sanger's cases, in 1875, in Virchow's *Archiv*, Maier and Hegar had reported on malignant uterine tumours of a decidual origin. There could be no doubt that now the consensus of opinion of the majority, including some of the best living pathologists, is that the special and characteristic features and etiological relations of deciduoma malignum entitle it to a distinct place among the malignant affections of the uterus. The large giant cells were peculiar in their irregular distribution, the absence of intercellular connections, and the existence side by side with these of other proliferating groups of cells of the sarcomatous type, together with the typical neoplastic tissue into which the multinucleated processes extended, producing the vascular degenerations and necrotic areas, were features which differentiated the cellular elements of this affection from those of other sarcomatous growths. That certain pathological features were associated with decidual elements, and occurred in connection with products of gestation, gave the disease its distinct etiological significance. No doubt views vary considerably on some points connected with its pathology, its epithelial or villous origin, and its relation to the syncytium. This was not to be wondered at when we remembered the unsettled views regarding the maternal or foetal origin of the latter, though from more recent researches, especially those of Williams and Salmon, it seems to be now settled that the syncytial cells have a foetal origin. Passing over, however, these divergencies as to its pathology, the point for them to consider was rather the practical one of the clinical features of a disease which, when once recognised, indicated removal of the uterus. As Marchand had said, it was a matter of indifference whether they relegated it to carcinoma or sarcoma. The hemorrhage, the foetor, the enlarged, softened and crumbling uterus, doubtless made differential diagnosis a matter of considerable difficulty. The occurrence of pulmonary metastasis had been emphasised by Newmann and Treub, so much so that hemoptysis in early pregnancy was looked on by these observers with suspicion. With regard to curettage, with clinical symptoms such as those attending

upon deciduoma, they were bound to curette and necessarily to have the *débris* carefully examined. If, in addition, the characteristic pathological appearances were present, the only remedy was extirpation. To show how difficult diagnosis might be in cases in which symptoms arose of a nature similar to those occurring in deciduoma, and with an ascertained relation to products of gestation, he would, with permission, read the notes of a case which he was sure would interest them.

CASE OF RECURRENT HÆMORRHAGE AFTER MOLAR ABORTION; SYMPTOMS SIMULATING THOSE OF DECIDUOMA MALIGNUM. By H. MACNAUGHTON-JONES, M.D., &c.

Dr. MACNAUGHTON-JONES said that these short notes of a case that came under his observation showed the difficulty of diagnosis, as well as prognosis, in certain forms of prolonged discharge associated with molar pregnancy. He read them as bearing upon the paper of the President, Dr. Halliday Croom, on "Deciduoma Malignum."

A lady, aged 23, consulted me in August, 1899. She had been married one year and eight months. When I saw her her symptoms were mainly persistent sickness with aggravated pains in the hypogastrium. She also complained of pain in the right groin and down the corresponding thigh. From her physician I had the following history:—She had been a delicate child, anæmic, and with marked lateral curvature, and at one time consolidation of the apices of both lungs. During adolescence she suffered from severe dysmenorrhœa, which was accounted for (through an examination under anæsthesia) by the presence of a conical cervix with very contracted os and marked retroflexion of the uterus, the ovaries, however, being normal in size and position. The uterine canal was dilated, and the uterus straightened and re-posed. Sufficient relief not following, later on the uterus was dilated and curetted, very little retroflexion remaining, and the dysmenorrhœa practically ceasing. Some time after marriage a metrorrhagic discharge commenced. She

described it herself as "a brown discharge" which always began a few days after her period, lasting until the commencement of the next. She was greatly reduced in weight, and anæmic.

When I saw her, I found on examination, at her first visit, that her uterus was enlarged, the cervix soft; a cervical laceration and a slight erosion present, with some sanious discharge; as she had passed over a period I did not measure the uterine cavity. That evening severe hæmorrhage occurred, which increased the next day, when she again came to me. On now examining I found a molar mass protruding from the os. The following day I dilated the uterus, curetted it, as I thought thoroughly, and applied chromic acid. I removed a quantity of molar *débris*. There was some foetor. I could not discover any chorionic remains on floating the substance in water. After the application of chromic acid, an iodoform tampon was inserted. This was removed after forty-eight hours, and the patient was doing well when on the fifth day some severe bleeding occurred, and on examination I found a substance filling the cervix. I accordingly quickly dilated it, and with a small ovum forceps brought away a mass which evidently had remained after the curetting. This was very foetid. The curetted *débris* was submitted for examination, and a report furnished by Mr. Targett that it consisted of products of gestation. The cavity of the uterus at the time was nearly four inches in length. On a few subsequent occasions I wiped out the uterine cavity with ichthyol and iodised phenol. She did perfectly well until October, 1899, when, as there was a recurrence of some hæmorrhage, I again dilated the uterus, curetted it, and applied chromic acid. There was nothing of any pathological importance in the curettings.

The following August, a year from the date of the first operation, bleeding and pain again commenced, with some sensitiveness of the uterus on examination. Also there was a recurrence of the erosion in the neighbourhood of the old laceration, while a small fungoid-looking growth protruded from the lip of the os uteri. I determined to curette her

again, thoroughly to remove the growth, and excise the laceration. I was now very uneasy about the nature of her disease, and had the fear of deciduoma unpleasantly before me, so much so, that I asked Mr. Targett to be present at the operation and see the condition, also to make a careful examination of the tissue removed, determining to perform hysterectomy if it proved to be of a malignant nature. I was relieved to find that this was fortunately not so. There was no further bleeding. I again wiped out the uterus a month later with iodised phenol, and she left England at the end of 1900 perfectly well. When last I heard from her, in October, 1901, she reported that though she had gained twenty-eight pounds in weight, and had felt very well, she had had a recurrence of her old symptoms and characteristic discharge. This had ceased for some time before writing. Here was a case which, from the point of view of age, pregnancy, molar degeneration, and the suspicious signs, I should not be surprised if deciduoma or sarcoma did eventually result.

That was just one of the cases in which it was most important and yet most difficult to make a diagnosis. He maintained that with regard to the diagnosis there was nothing to do except to wait until one obtained the characteristic pathological appearance such as the President had shown them, in the characteristic features of which all those who had written recently on the subject concurred, and which in his own opinion did undoubtedly mark this affection as a peculiar disease associated with gestation, and having a decidual relation which was malignant and which nothing could cure but total removal of the uterus.

Mr. CHARLES RYALL thought that in the differentiation of deciduoma malignum from other forms of malignant disease two points were of particular importance. In no other type of such disease were metastases encountered so early in distant organs, nor were there the same transplantations in the lower genital tract.

The PRESIDENT, in reply, said the difficulty of diagnosis was, as Dr. Heywood Smith had pointed out, considerable.

If, after the removal of a myxomatous mass from the uterus the patient had some hæmorrhage, and on curetting a villus, or even proliferating cells were found in the *débris*, the evidence was not decisive; but in deciduoma the use of the curette generally caused enormous hæmorrhage, which at once aroused suspicion, and if repeated hæmorrhages followed the expulsion of a myxoma, if the uterus were enlarged and there was a plentiful foul and sanious discharge, and corroborative evidence was obtained by the microscope, one might safely conclude that one had to deal with deciduoma malignum. He thought that Dr. Macnaughton-Jones' remarks, with which he entirely concurred, were a sufficient reply to Dr. Snow's doubts as to deciduoma being distinct from other forms of malignant affections of the uterus.

*BRITISH GYNÆCOLOGICAL SOCIETY.*

## THE ANNUAL DINNER.

THE Annual Dinner of the Society took place at the Café Monico, Piccadilly, on Wednesday, January 29, 1902, the President, Dr. J. A. Mansell Moullin, taking the Chair.

Among those present were: Dr. Robert Barnes, Honorary President of the Society; Surgeon-General Taylor, Director-General of the Army Medical Department; Professor T. Clifford Allbutt, F.R.S.; Professor Watson Cheyne, F.R.S., President of the Pathological and Harveian Societies; Dr. Allchin, President Medical Society of London; Dr. C. H. F. Routh; Sir Thomas and Lady Gallway; Sir J. Crichton Browne; Professor J. W. Taylor; Mr. Bowreman Jessett; Dr. H. Macnaughton-Jones; Dr. Heywood Smith; Dr. Travers; Dr. T. Claye Shaw; Dr. J. J. Macan; Dr. Snow; Dr. W. H. Bourke; Dr. Slimon; Dr. Roe Carter; Mr. Noble Smith; Dr. Inglis Parsons; Mr. P. J. Freyer; Dr. R. T. Smith; Dr. Lucey; and many others, including several ladies.

After the usual loyal toast of "The King and Queen," proposed by the President, Dr. MILNE MURRAY gave the toast of "Our Visitors," and coupled it with the names of the Director-General of the Army Medical Department, the President of the Medical Society of London, and Professor Clifford Allbutt, F.R.S.

The DIRECTOR-GENERAL responded on behalf of the Army Medical Department, and in the course of his remarks appealed for a closer association between medical men in the Army and Navy and those engaged in civil practice, and for the due recognition of the professional work done by members of the Services.

The PRESIDENT OF THE MEDICAL SOCIETY (Dr. Allchin), in acknowledging the toast, laid much stress upon the interdependence of all branches of medicine as an adequate reason for the avoidance of too strict a specialism.

Professor CLIFFORD ALLBUTT pointed out that although it might not be within the scope of a University such as Cambridge to teach the practice of gynæcology, yet it was its function to investigate the physiological and pathological problems on which this practice depended, and that more than one worker was so engaged there at the present time.

The "Gynæcological Society" was proposed by Sir J. CRICHTON BROWNE, F.R.S., in a humorous and appropriate speech. He said that this was the first occasion in his experience on which ladies were present at a medical dinner; that they should be so was quite in accord with the modern spirit, and he regretted that some lady was not occupying his position to disclose what ladies really thought of their trusted advisers. The one qualification he possessed for proposing such a toast was that he approached the subject with impartiality, his own specialty being as far apart from gynæcology as the pole from the equator; his appreciation of the Society might therefore be accepted as genuine. As the pioneer of modern gynæcology, the Society has done excellent scientific and practical work, and with all the advantages of modern anæsthetics and asepsis, its influence in the future would no doubt lead to greater triumphs than any yet reached. The conditions of life under which women live were changing with startling rapidity, with results not only profound, but pathological as well as evolutionary. Gynæcologists had therefore not merely to grapple with ancient foes, but to be on the alert to oppose the advances of new assailants. Hitherto their work had been more curative than prophylactic; but he was confident that, under the auspices of the Society, future investigation would afford trustworthy guidance for the preservation of vigorous existence in that sphere whose social and ethical relations were so momentous. For gynæcologists to discharge what he might call their public trust efficiently, a Society such as



theirs was almost essential. It contributed to the winnowing of knowledge, to the perfecting of skill, to the stimulation of research, and to the maintenance of a high standard of professional honour. That this Society was well capable of performing its function in all these respects was indicated in many ways; that a man of the eminence of Dr. Halliday Croom, President of the Royal College of Surgeons of Edinburgh, was to be their next President was a sufficient guarantee of its position at home; that many of the most distinguished gynæcologists in America and on the Continent were proud to be enrolled among its Fellows was a sufficient guarantee of its reputation abroad. But it was not only on the Continent and in America that this Society had earned appreciation; it had many Fellows in our Colonies, in Canada, Australia, and New Zealand, where we may hope it will further extend its influence so that our brethren beyond the seas may share in our scientific advantages, as they have recently so nobly participated in our dangers and anxieties. Their Chairman, the retiring President, Dr. Mansell Moullin, had been identified with the Society from its foundation, had filled every honourable post in it in succession, and in each of them had won the esteem and gratitude of all its Fellows. His skill as a gynæcologist commanded respect, while his urbanity and generous hospitality evoked much warmer feelings. His year of office would be remembered, not, perhaps, as the *annus mirabilis*, but as the *annus muliebris*, for during it ladies had for the first time been welcomed to the Fellowship as well as to the Dinner. In proposing the toast of the "Gynæcological Society," he would couple with it the name of the President, Dr. Mansell Moullin.

The PRESIDENT, in responding to the toast, briefly alluded to his association with its foundation, to its early career, the origin of its name, and its work and object, and the great value and excellence of its JOURNAL. He then referred to the great reputation and high standing of those who had previously occupied the Presidential Chair; expressing his confidence that, under the ægis of his successor, Dr.

Halliday Croom, the Society was ensured of continued and brilliant success.

The next toast on the list, that of "Our Honorary President" (Dr. Robert Barnes), was proposed by Dr. MACNAUGHTON-JONES, who said that in the estimation of character it might be truly stated, "a man is his work, and his work is the man;" and the greatest compliment that could be paid to some men was the simple reference to the work that they had done. In the medical profession there were numerous workers of many types—laborious investigators, original thinkers, and great clinical and literary teachers—but true genius seldom appeared. Not often did we meet with a Harvey, a Jenner, a Helmholtz, a Pasteur, or a Simpson. Electric light emanating from a single point seemed to him to be the analogue in the physical world of genius in the mental, which sometimes so illuminated succeeding ages, that centuries afterwards men were raised to the highest pinnacle of fame and believed in as illuminati, who merely reflected unconsciously the rays of a light borrowed from some illustrious genius of the past. But true instances of genius were found in those great clinical teachers who were able to impart to the generation in which they lived their principles of observation and practice, to be handed down to succeeding generations; such men were Stokes and Graves in Ireland, Simpson in Scotland; and to the names of Watson Todd, and Paget in England, might he not well add that of Robert Barnes, their Honorary President. The classical writings on obstetrics and gynæcology which he had given to the profession during the last thirty years were peerless and unrivalled, but not by them alone had he won their respect and esteem; they recognised his liberal views and independence of character, and they regarded him as the one who, most of all, had given to their Society, in its incipience, a solid basis and foundation; he knew that he only expressed the feeling of all its Fellows in hoping that their Honorary President might long be spared to hold the position that he did, to see the Society developing, progressing, and prospering, a lasting monument to his name and to the position he

held in the world of obstetrics and gynæcology at the time of its foundation. Honour to whom honour was due.

Dr. ROBERT BARNES said: Mr. Chairman, Ladies and Gentlemen,—“Surgit amari aliquid,” may I say, “aliquis”? I feel it difficult to respond in adequate words to the toast proposed in such warm and eulogistic terms by Dr. Macnaughton-Jones, and so cordially received by you. I am so touched by his generous speech in praise of my work that emotion tempers verbal expression. One of the most grateful reminiscences of my career has been the share I have had in the foundation of the British Gynæcological Society. I may fairly say that I have worked honestly, doing justice to others, and that it will be a most gratifying reflection to look back upon the earnest acknowledgment of my work you have given me to-night. It is a great pleasure to be present at a gathering which marks the eminent success of this Society, to meet again many of my old friends who have made it what it is, and, as I hope to see on other occasions, many younger men upon whom will fall the pleasant task of maintaining its reputation and of extending its influence. I can best attempt to express my feelings by thanking Dr. Macnaughton-Jones for the generous tone of his toast and you for the cordial reception you have given it.

The toast of “The Ladies” was proposed by Dr. C. H. F. ROUTH, who said he always regarded women as the links between angels and men, because of their purity, kindness, softness of heart and tenderness of manner. It was this character in women which made married life such a blessing, and enabled them to bring up their children in refinement and heroism. It was indeed universally acknowledged that the makers of great men were their mothers, yet, however noble and generous he might be, a man, unless he had been privileged to associate with women, would always be deficient in refinement and gentleness of manner. British women, too, had other great advantages, for they, and the Styrians, were the most beautiful in the world, and we find among them the most distinguished and accomplished writers. To the audience he was addressing it was superfluous to dilate on

the benign and beneficent influence of well-trained women by the bed of sickness and suffering; there, indeed, they glorified God in alleviating the sufferings of afflicted humanity.

The musical arrangements, which were highly appreciated, were carried out by Dr. W. H. Bourke, who was kind enough to sing himself, and had secured the services of Mr. E. Wareham for a song and a duet, and of Mr. E. de Groot for two violin solos.

*ORIGINAL COMMUNICATIONS.***PRECOCIOUS SEXUAL DEVELOPMENT, WITH ABSTRACTS  
OF OVER ONE HUNDRED AUTHENTIC CASES.****BY W. ROGER WILLIAMS, F.R.C.S.**

ONE of the most remarkable features in the development of the body, is the great punctuality with which the different ontological events come off. Yet a wide range of variability in this respect is not incompatible with health. Developmental anomalies of this kind are, I think, quite as interesting and important as morphological anomalies, but they have been far less studied. They are met with in respect to dentition and other conditions, besides sexual development.

Signs of sexual precocity may supervene at any time from birth to the normal period of puberty. The term "precocious" has by some authors been restricted to sexual development arising prior to the eighth year, while instances arising after this period have been denominated "premature"; although such distinctions are arbitrary they are often clinically useful.

Instances of sexual precocity are met with in both sexes, but the anomaly is of much commoner occurrence in females than in males, the proportion in my list being eighty females to twenty males.

As the cases in my list show, all nationalities living in civilised communities are prone to this anomaly; but we have no evidence as to its occurrence among savages. In domesticated animals many instances have been noted.

In mankind and all domesticated animals, the females

are earlier evolved than the males. In most temperate climates the average age for the onset of puberty in females is between the fourteenth and fifteenth years, whereas for males it is about a year later. It has been estimated that from 8 to 12 years of age a girl gains 1 lb. a year on a boy; and in mixed schools they generally obtain the first places up to the age of 12.

In his "Life History Album," Galton gives the following table, showing the comparative average weight and stature of the sexes in the United Kingdom, which will be useful as a standard for estimating the degree of anomalous development, and in other respects.

AGE IN YEARS.	WEIGHT IN POUNDS.		LENGTH IN INCHES.	
	Males.	Females.	Males.	Females.
0	8	7	19	18 $\frac{3}{4}$
1	24	22	28	27 $\frac{1}{2}$
2	28	26	32	31 $\frac{1}{2}$
3	32	30	35	34 $\frac{1}{2}$
4	35	33	37 $\frac{3}{4}$	37
5	39	37	40 $\frac{1}{2}$	39 $\frac{1}{2}$
6	43	41	42 $\frac{1}{2}$	41 $\frac{1}{2}$
7	48	45	44 $\frac{3}{4}$	43 $\frac{1}{2}$
8	53	49	46 $\frac{3}{4}$	45 $\frac{1}{2}$
9	58	54	49	47 $\frac{1}{2}$
10	64	59	51	49 $\frac{3}{4}$
11	69	64	52 $\frac{1}{2}$	52
12	74 $\frac{1}{2}$	70 $\frac{1}{2}$	54	55
13	79	82	55 $\frac{3}{4}$	57 $\frac{1}{2}$
14	86	92	58	59
15	95	102	60 $\frac{3}{4}$	60 $\frac{1}{2}$

Judging from the paucity of such cases in modern scientific records, precocious sexual development in its extreme forms must now be a rare anomaly. The literature for the nineteenth century accessible to me, has yielded only one hundred and five cases; and many of the best of these were reported in the early part of the century. Hennig, in 1892, was able to collect only 35 cases from international records.

It has been estimated that in temperate climates about 5 per cent. of all females begin to menstruate before the twelfth year.

Of 2,330 instances of first menstruation in American girls, as tabulated by Emmet, in not a single instance did the flux appear prior to the tenth year. In 19 cases it appeared at the tenth year; in 81, between the tenth and eleventh years; in 274, between the eleventh and twelfth years; in 437, between the thirteenth and fourteenth years, and in 591, between the fourteenth and fifteenth years.

Of the 19 cases of menstruation at the tenth year, in 12 it continued regularly from that time, 5 became regular within the next year, and in the other 2 irregularity persisted.

The date of the supervention of puberty appears to be influenced, among other conditions, by climate, race, mode of living, and social environment.

According to Tilt, the average age of English girls at first menstruation is 14.92 years; and Emmet, for American girls, gives the average at 14.23 years. Puberty supervenes earlier in tropical than in cold climates. Among the Hindoos—who are a branch of the same stock as ourselves—the average age is about 12 years, but many menstruate much earlier, and it is the same with many negro races. On the other hand, according to McDiarmid, puberty is often delayed among the Esquimaux women much beyond the ordinary period, even to the twenty-third year; for the Lapps the age is 18; for the Finns, 16.27; for the Danes, 16.88; and for Norwegians and Swedes, from fifteen to sixteen years.

The influence of race has some effect, for it has been observed in various countries that Jewesses menstruate much earlier than the females of other races; thus Joachim reports that in Hungary, while the average age for Jewesses is thirteen to fourteen years, that for Magyars is fifteen to sixteen years, and for Slavs sixteen to seventeen years; similar phenomena have been noted in Russia and Poland.

Privation and hard work—mental or physical—retard the advent of puberty, while luxury and high living accelerate it.

It has been reported that town-reared girls menstruate from six to twelve months earlier than their country-bred sisters, and this is probably largely due to their seeing more of the opposite sex ; for it has been observed that animals in captivity become sexually mature at an earlier age when the sexes, although separate, live in propinquity.

Precocity is generally manifested in both sexes, in respect to the *ensemble* of the phenomena that together constitute sexual maturity ; but it often happens, especially in females, that such manifestations affect only some one or more of the constituent phenomena. Thus instances of precocious menstruation, without premature development of the genitalia or secondary sexual characters, are relatively numerous. In some cases the only evidence of female precocity may be mammary overgrowth ; in others, menstruation ; in others, ovulation ; and in yet others, undue development of the external genitalia, sexual hair, &c. From this it may be inferred that the various phenomena, which together constitute sexual maturity, have been gradually evolved and co-ordinated, rather than that they have sprung suddenly into existence as a physiological entity.

In precocious females, the internal sexual organs and pelvis are often prematurely evolved, as well as the external genitalia, &c. At necropsies on girls affected in this way, maturing Graafian follicles, corpora lutea, and recent ovarian cicatrices have been detected, conditions of this sort having been met with at birth, and even in the seven-month foetus. Similarly, in precociously evolved boys, the testes are often of great size, and they have been known to have emissions ; while in the foetus, born before term, premature descent of the testes into the scrotum has several times been noted, even at such early periods as the fifth and sixth months of intrauterine life. The earliest age at which spermatozoa may be found in the emissions of precociously-developed boys has yet to be determined ; but it is probably much earlier than is generally believed.



Sexual precocity is not incompatible with healthiness, but most of those affected have bad health, and they are generally short-lived. The truth of the popular estimate of precocity, as indicated by the proverb "early ripe, early rotten," receives abundant confirmation from the cases I have collected. A large proportion of these children suffer from rachitis—especially the females—and this may account for the fact that their dentition and skeletal development is generally decidedly backward. It accords with this that in some cases, with no rachitic indications, the dentition and skeletal development have also been precocious. Hydrocephalus is sometimes met with. Many of these children have been observed to have unduly large heads ; rachitis and hydrocephalus probably account for most instances of this kind. In a few cases the enlargement has especially affected the occipital (cerebellar) region.

The mental qualities of these anomalous children never correspond to their sexual or bodily development ; either they have the child-like psychical qualities of their age, or they are unusually dull, mentally defective, or even idiotic.

Infants of this kind seldom manifest passion for the opposite sex, in a degree at all proportionate to their physical precocity, but they are often addicted to self-abuse. In this connection, it is curious to note the proneness of children of both sexes—and even quite young infants—to this vice, even in the absence of physical precocity, to which Havelock Ellis, Athol Johnson, Meigs, Broca, and others, have called attention.

Precocity has occasionally been observed to supervene after some serious illness ; and the development of a voracious appetite is a precursory indication that has often been noted. Obesity is by no means uncommon.

Undue pigmentation of the general integument (diffuse or discrete) and hypertrichosis have been noticed in several cases. The type of hairiness usually met with is the heterochronic, but exceptionally other forms occur.

I have found 13 instances of sexual precocity in female

children coincident with intra-abdominal tumours, 11 of which were of ovarian origin (8 sarcomata, 2 cystomata, and 1 fibroma), and 2 of adrenal origin (both sarcomata). Of 23 sarcomatous ovarian tumours in young children Gautier found that 4 were associated with signs of sexual precocity. In most cases of this kind we may, I think, regard the sexual precocity as a consequence of the presence of the tumour ; but in some instances the premature disposition to tumour formation appears to be a consequence of precocious ageing, for the ordinary stages of growth and development are very quickly run through by the precocious. Thus instances of greyness of the hair, baldness, atheroma of the arteries, and of senile decay, have been met with in precocious children. A remarkable example of early cancer, reported by Bernard, seems also to belong to this category. His patient menstruated from birth until she was 12 years old ; the catamenia then ceased for a time, but subsequently recurred at irregular intervals. She married at the age of 20, and died, aged 27, of cancer of the uterus.

It appears from the cases in my list that these anomalous children generally come of large families, but it seldom happens that more than one child in a family is thus affected. In a few instances one of the parents had been similarly precocious.

Great precocity in the general increase of the body, usually brings with it premature pubescence or the first signs thereof. If, under these circumstances, the sex organs continue to develop rapidly and rush on to complete evolution, the general development becomes retarded and stunted ; hence, such persons, notwithstanding their precocity in early life, generally end by being much below the average size. On the other hand, precocity with arrest or retardation of sexual development—as St. Hilaire has pointed out—tends to the production of gigantism, for growth is then freed from the incubus of the opposing forces of reproduction and development ; thus the sexual impotence of giants and their backward development may be accounted for.

It is a curious fact, that in female infants sexual precocity is comparatively seldom correlated with any such great increase in the general development of the body, especially of the muscular and skeletal systems, as is commonly seen under similar circumstances in males. This difference may be due to the sexual development being relatively more completely evolved in the former than in the latter.

It accords with this, that precocious maternity is of much commoner occurrence than precocious paternity; and whereas the earliest age at which girls have been known to conceive is 8 years, the earliest age at which boys have proved virile is about 13 years.

Female precocity of the less extreme kind, such as that which supervenes between the normal period of puberty and the tenth year, is generally indicative of nutritive vigour and vitality in excess of the ordinary; thus, precociously evolved females of this sort, generally marry earlier and have more children than the average. Emmet's statistics show this; for the eleven married females in his list—who commenced to menstruate at the tenth year, and whose average age at marriage was 18 to 25 years—were impregnated fifty-nine times, which gives a higher average of fertility than was met with in those who commenced to menstruate at any other age.

The Hindoos consider it disgraceful for a girl to menstruate before she has had the opportunity of conceiving; hence, they give their daughters in marriage when they are only 8 or 9 years old. They thus have the chance of becoming mothers at a very early age; and it has been reported that in 20 per cent. of their marriages, the first child is born to mothers only 12 to 13 years old. The precocity of Hindoo females may have something to do with the long-continued prevalence of this ancient custom.

Notwithstanding the exceptionally early age at which some of these precocious females conceive, they are often able to suckle their offspring.

It is curious to note the comparative frequency with

which these "child-mothers" have had for lovers boys almost as precocious as themselves ; thus, of the fourteen cases in my list, this was known to have been the case in three instances. In one of these, a girl of 12 was impregnated by a boy of 14, and was delivered at term of a fine child, weighing 9 lbs. This shows that, owing to some constitutional peculiarity, the precocious—like the deaf and dumb, the blind, the tubercular, the insantly disposed, and so many others—have strong elective affinity for each other. It seems to me that examples of this kind may properly be included within the biological law of *affinité de soi pour soi*, as propounded by St. Hilaire in a more restricted sense.

Animals as well as human beings are prone to precocity, especially domesticated varieties. Thus, Berthold has described an instance in which a kid, only 14 days old, was impregnated by an adult goat, and bore a living kid at the natural term of gestation. Compared with such precocity as this, the examples met with in human beings are by no means extraordinary.

As a rule, the lower species of animals develop more rapidly and are more precocious than the higher ones, and few animals are so slow in attaining maturity as man.

Among the different races of mankind, the lower ones are more precocious than the higher ; thus the children of savages, negroes, &c., are—up to a certain age—more active and intelligent than their European congeners, and their reproductive faculties are earlier evolved. With the advance of civilisation, precociousness tends to become less and less. Women, and the females of all domesticated animals, are more precocious and earlier evolved than males. In short, there can be no doubt as to the correctness of Delaunay's dictum, that "precocity is a sign of biological inferiority." The higher tissues and organs also are much more slowly evolved, and much less prone to precocity, than the lower ones. This is especially so with the human brain, which appears not to attain its developmental maximum until very

late in life—even up to the fiftieth year ; and it is noteworthy that this organ is hardly ever affected in cases of precocity.

Such considerations as the foregoing, seem to indicate that many cases of precocity are due to reversion. In this connection it is well to recollect, that with uncivilised peoples early marriages are the rule—their females often marrying when only 9 years old and their males at 16.

The different types of sexual precocity in females may be classified as follows<sup>1</sup> :—

(a) Menstruation appearing prior to other signs of sexual evolution.

(b) Precocious menstruation, with the early appearance of other signs of puberty.

(c) Precocious sex manifestations without menstruation.

(d) Early conception and pregnancy.

(e) Sexual precocity with intra-abdominal tumour.

Transitory vaginal hæmorrhages in newly-born children, lasting for a few hours or for several days, are of such almost invariable occurrence that they may be regarded as physiological. Hitherto, discharges of this kind have generally been considered to be “accidental,” but it seems to me, after careful study of the subject, that it would be

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<sup>1</sup> Since this was written I have had an opportunity of perusing v. Gautier's instructive essay on this subject (*Rev. Méd. de la Suisse romande*, t. iv., 1884, pp. 501, 510, 555 and 633). His list comprises several cases that had escaped my notice. He classifies his cases as follows : (i.) Genital hæmorrhages of the newly-born ; (ii.) precocious menstruation, without other signs of precocity ; (iii.) vaginal hæmorrhages due to tumours of the genital organs, some of which are associated with signs of premature sex development ; (iv.) precocious maturity involving the whole organism. Gautier cites over 40 cases as belonging to the last category. He insists on the necessity of discriminating these cases from those in which only the sexual system is implicated ; but it seems to me of more importance for the understanding of these conditions to recognise their analogies, rather than to set up artificial distinctions. Besides, in none of Gautier's cases of “precocious maturity,” was the nervous system proportionately evolved, so that it cannot be truly said that the *ensemble* of the organism was affected.

more correct to regard the phenomenon as the prototype of the menstrual flux. The following considerations lend support to this view. A discharge of this kind generally appears a few days after birth, and may last for any time up to five or six days; usually, however, the period is much less. As a rule it is not repeated, but in many instances it has been observed to recur periodically for a few times before its final cessation. In a smaller number of cases it has been found to merge into regular menstruation, with the subsequent development of other signs of sexual precocity.

Of like import is the discovery of mature Graafian follicles, corpora lutea and recent ovarian cicatrices in the ovaries of newly-born infants, of which many instances have been reported.

Similar significance attaches to the mammary changes that are almost invariably met with in the young of both sexes shortly after birth. As I have pointed out in my work on "Diseases of the Breast," these changes, on a small scale, resemble those normally occurring in the mammæ of adult females during lactation, and like the latter, they result in the secretion of a small quantity of true milk.

For descriptive purposes it will be convenient to group the successive cases according to the period at which precocious manifestations were first noticed, as follows :—

(A) PRECOCIOUS SEXUAL DEVELOPMENT IN FEMALES  
(62 Cases).

*At Birth or thereabouts.*

*(The references to the Cases will be found on page 112.)*

IN several instances children have been born manifesting some or all of the signs of puberty.

(1.) In a case reported by Campbell, menstruation began at birth and continued regularly until the child died at the age of 4 years, when the mammæ and external genitalia were like those of a pubescent woman. The necropsy showed that the internal sexual organs and pelvis were likewise prematurely developed.

(II.) In Bernard's case, menstruation began at birth and continued until the twelfth year, when other signs of puberty supervened. Somewhat later, after strong emotion, the catamenia became irregular. She married at 20, contracted syphilis from her husband soon afterwards, and died, aged 27, of cancer of the uterus.

(III.) Irion saw an infant, 7 days old, in whom sanious vaginal discharge had just supervened, which lasted for four days. Next month it returned, but the following month it ceased, owing to chill when taking a cold bath. The child then became indisposed, and acute eczema broke out all over its body. The menstrual discharge subsequently became re-established and continued to be regular. The eczema disappeared, and the child subsequently enjoyed good health. The mammæ and pubes were prematurely developed. She was the second child, and at birth weighed 9 lbs. Her mother began to menstruate when 13 years old.

(IV.) In a child only 2 weeks old, Drummond observed menstruation at the second week, which recurred regularly every month and lasted two or three days. At the age of 4 years she was still menstruating regularly, and was a perfect little woman, except for the absence of pubic hair. She had ephelis on the back. The breasts and external genitalia were like those of a pubescent woman. The uterus was of the pubescent size and shape, the cervix and vagina being large. She was well nourished and plethoric looking, but presented genu valgum and other rachitic symptoms. Her mental disposition was, however, childlike.

(V.) In a similar case by Ashton, menstruation began two weeks after birth, recurring every month or two until the age of four years, when it took on the regular periodicity of the normal catamenial flux. At the age of 7 years—when she presented a ruddy, healthy, and well-developed appearance—the catamenia were still regular. The breasts were slightly enlarged. This girl's mother commenced to menstruate when only 9 years old.

(VI.) Howitt has reported an instance in which considerable hypertrophy of both breasts was noticed one week after birth, and this increased in the following week, there being no signs of inflammation. The child was in other respects normal.

(VII.) Hahn has met with an instance in which the left breast was similarly affected at birth, and both hands were hypertrophied.

(VIII.) In a child born at New Orleans, U.S., of poor white parents, Le Beau found both breasts, at birth, largely developed, and the mons veneris covered with hair. The catamenia appeared when she was 3 years old, and subsequently continued regularly. Each breast was then the size of a large orange.

(IX.) Isabel, a female slave belonging to Dom Pedro of Havannah, began to menstruate shortly after birth, and during the first year the catamenia became regularly established. At birth the mammæ were



largely developed, and the axillæ were hairy. When 32 months old she was 3 ft. 10 in. high ; the mammæ and external genitalia were then like those of a pubescent girl, and her voice was grave and sonorous.

(X.) Ramon de la Sagra has related the history of an infant negress, who had very large breasts from birth, and a few months afterwards sanious discharge supervened from the genitalia. This recurred several times during the first year, and from the second year it took on the regular periodicity of the catamenial flow. When only 32 months old all the signs of puberty were manifest.

(XI.) In Mallet's case, some days after birth the mammæ attained to the size of large fowls' eggs, and colostrum-like fluid could be expressed from them. The external genitalia were unusually well developed, and there was sanious vaginal discharge.

(XII.) Wilson's case is very similar to the foregoing. At birth the breasts were the size of fowls' eggs. In the course of the next five months, they increased to the size of those of a young woman at puberty. At this time the catamenia first appeared. When 6 years old she was fat, with adult mammæ, and the pubes was covered with hairs.

(XIII.) In a child seen by Bouchut, who was born with the mammæ notably enlarged, menstruation supervened at the twenty-second month, and continued regularly afterwards. At the age of 4 years the mammæ and external genitalia were well developed, and the general aspect was that of a pubescent female.

(XIIIa.) Arnold saw the mammary development greatly exaggerated at birth, and on the third day thereafter, a sanious vaginal discharge. This loss recurred every three or four weeks, generally lasting for twenty-four hours, until her death, from croup, when 16 months old. Her health had never been good. A second child of the same mother showed somewhat similar precocity which, however, proved to be transitory.

### *Birth to the Sixth Month.*

(XIV.) Zeller reports that a child seen by him began to menstruate when only 2 months old, and continued to do so regularly, each period lasting three or four days. She was 5 months old when last seen, and her general health was then very good.

(XV.) In a child under Kornfeld's observation regular menstruation began at the third month, and she was frequently detected masturbating when only 3 years old.

(XVI.) In Van der Veer's case, menstruation commenced at the fourth month, and soon became regularly established, each period lasting four or five days. When only 2 years and 7 months old her general appearance was that of a girl at puberty. The breasts and external genitalia were well developed, and there were hairs on the pubes. She weighed 49 lbs. The general health seemed good. She



was bright and intelligent, but irritable. Her tastes were those of a much older child.

(XVII.) Harle met with sanious vaginal discharge in a child 5 months old, which lasted three days, and recurred every month until the fourteenth month, when the child died of diarrhœa. At the necropsy the pubes was hairy and unduly developed. The uterus was large ( $1\frac{1}{2}$  inches long), the os congested and patent; both ovaries were large, the left being twice the size of the right, and there were several small cysts in both. This child was the youngest of three children, all girls.

(XVIII.) In Townsend's case the breasts began to enlarge at the third month, and at the sixth month sanious vaginal discharge was first noticed, and subsequently the child menstruated every fifth week. When 1 year old she was fat and healthy looking. The breasts were enlarged, and the pubes was hairy. Her weight was 28 lbs, and she was 30 inches high. At birth she weighed 9 lbs. She cut her first tooth when only 4 months old.

(XIX.) Comarmond, in the south of France, met with an infant 3 months old, who had breasts like those of a woman at puberty, hairs on the pubes, and the catamenia regularly established.

(XX.) Bittner found both mammæ of pubescent size in a female child 6 months old.

(XXI.) Montaris, of Mitylene, has reported the history of a child who began to menstruate six months after birth. The general development of the body was also very premature. The hair of her head was long and strong, and the breasts were large. The features were regular, and the expression was intelligent.

(XXII.) In De Vlaccos' case, sanious vaginal discharge appeared at the sixth month, and about six weeks later it returned, gradually merging into the regular catamenial flow, of four days' duration. At such periods the child was depressed. At 6 years of age, she was of the size and appearance of a child of 10, except that the genital and mammary development was still more developed, being like that of a young woman of 17. The hair of her head was very abundant and long, but intellectually she was not above the level of her age.

(XXIII.) In the case of L. M., sanious vaginal discharge was noticed shortly after birth, which disappeared after a day or two, but returned eighteen months later for two days, appeared again two months later, reappeared the next month, and manifested itself again two months afterwards; then it disappeared for five months, after which menstruation became regularly established. At  $3\frac{1}{2}$  years of age Strecker reports that she was much stronger, bigger and heavier than her eldest sister, who was five years her senior. The skeletal and muscular development were those of puberty, as also were the large and prominent mammæ. She was one of a family of four.

*Sixth Month to One Year.*

(XXIV.) Menstruation began in a child 8 months old, as reported by Cabadé, and there was concurrent precocious development of the external genitalia.

(XXV.) In an infant seen by Morse, menstruation began at the age of 9 months, and recurred regularly. At birth she weighed 14 lbs. When 1 year and 3 months old her weight had increased to 36 lbs., and she was then  $32\frac{1}{4}$  inches high, the mammary development being considerable.

(XXVI.) In a case reported in the *Lancet*, the growth of the child was so rapid, that by the ninth month she was double the normal size of a child of her age. Menstruation then began, and appeared again at the eleventh month. The mammæ now began to enlarge, and hairs to appear on the pubes. She menstruated again in the fourteenth and nineteenth months. She was then 3 ft. 9 in. high, and her chest measurement was 22 in. The breasts and external genitalia were of pubescent type. She had shown no indications of sexual desire.

(XXVII.) In Wall's case, menstruation began at the ninth month, and continued regularly. When 2 years old the child presented all the signs of puberty.

(XXVIII.) When not quite one year old, menstruation began and continued regularly, in a child seen by Tchernomordik. The periods recurred every four weeks, each lasting four or five days. She was otherwise well developed.

*One to Two Years.*

(XXIX.) In a child 3 years old, who had menstruated regularly from the end of the first year, and who died soon after a catamenial period, Prochownick found the ovaries large and vascular, notched and puckered, with recent cicatrices on their surface, and in each a corpus luteum. The vagina was large, and 5 cm. long. The uterus was also large, and 4 cm. long, the cervix and corpus each being of equal length. Histological examination of the uterine mucosa showed that glandular structures were already developed in it. The mammæ and external genitalia were pubescent, the hair of her head unusually long and abundant. She was tubercular and rachitic.

(XXX.) When 18 months old, a child seen by Allbut commenced to menstruate, the period lasting two and a-half days; this was repeated in the nineteenth, twentieth, twenty-first and twenty-second months. After the last period the child, who had become very weak, emaciated and exhausted, died with hectic symptoms. There was no necropsy. There were no other signs of premature sexual development.

(XXXI.) In his work on the "Diseases of Women," Thomas has given a good figure of a menstruating child, aged 4 years and 9 months, in

whom the catamenia had been regularly established since the twenty-first month. The child's bust was largely developed.

(XXXII.) Warner has recorded the history of a Cincinnati Jewess' child, in whom menstruation commenced at the twenty-third month and continued regularly. When  $3\frac{1}{2}$  years old this child weighed 38 lbs., and was 38 in. high. The pelvis was of great size and breadth—the distance from one anterior superior spine to the other being  $10\frac{1}{2}$  inches, or above the normal average for adults (10 in.)—and she was somewhat bow-legged. The mammæ and external genitalia were pubescent, and there were hairs on the pubes and the axillæ. Her demeanour was maidenly and ladylike.

(XXXIII.) In Walletin's case, menstruation commenced at the fifteenth month. When  $6\frac{1}{2}$  years old she was much bigger and heavier than is usual with children of that age, and the mammæ and external genitalia were remarkably developed.

(XXXIIIa.) Flugel has published an account of a precociously evolved child, who died aged 5 years and 6 months, of dysentery. She had then attained the height of 5 ft., and the bodily development was proportionate. The hair of her head was long and beautiful; the mammæ were markedly prominent; the external genitalia well developed, and the pelvis capacious; but her mental qualities were merely those of a child of her age. She began to menstruate when 18 months old, and continued regular until her death. She was also precocious in her dentition, having cut all her incisors when only 6 months old, and all her molars at 9 months.

(XXXIV.) Hofacker's patient commenced to menstruate regularly at the end of her first year, the periods lasting about four days. When 9 years old she was still regular; the mammæ and external genitalia were fully developed, the pubes and axillæ being hairy. Her height and weight did not exceed the normal standard. She was plump, but decidedly rachitic, being unable to walk until 20 months old. The mental powers were dull.

(XXXV.) A mentally defective child,  $5\frac{1}{2}$  years old, exhibited to the Bristol Medico-Chirurgical Society by Stack, with premature sexual development, began to menstruate at 18 months, and had since been regular, the periods lasting three days. The breasts began to enlarge at about the same time, and have since continued to increase. The pelvic measurements are those usually met with at the age of 12 years.

(XXXVI.) Jagoe has seen a well-developed negro child 4 years old, with all the external signs of puberty, who had menstruated ever since she was 2 years old. She was her mother's tenth child, and there were two younger.

### *Two to Three Years.*

(XXXVII.) Mardelshof mentions having seen an infant, aged 2 years, with breasts as large as those of an adult woman, in whom menstruation set in at the age of 3 years.

(XXXVIII.) In a child seen by Harding, menstruation began at the twenty-sixth month, and continued regularly every three or four weeks, each period lasting four or five days. At such times she was irritable and lost her appetite. Her only sister began to menstruate at the age of 7 years.

(XXXIX.) In Embling's case, a child aged 3, who had menstruated regularly for one year, presented the aspect of a "little old woman," the mammæ and external genitalia being of pubescent type.

(XL.) Regular menstruation set in during the second year in a case described by Diamant; at the age of 6 years she resembled in appearance a woman at puberty. Milk dentition was completed during the first year.

(XLI.) In Jakubovitch's case menstruation also began at 2. At 3, the mammæ were as large as hen's eggs and discharged lactescent fluid. The periods were preceded by irritability and a tendency to shed tears; and were followed by headache, giddiness and anæmia. At  $6\frac{1}{2}$  years of age the mammæ were the size of small oranges, the clitoris and labia minora being somewhat hypertrophied.

(XLII.) When 2 years old regular menstruation supervened, in a case reported by Woodruff; and at the age of 6 other signs of puberty appeared, including mammary enlargement and pubic hair.

(XLIII.) A healthy woman, aged 26, told Colby—who was attending her for her first confinement—that she had menstruated regularly ever since she was  $2\frac{1}{2}$  years old.

(XLIV.) Yates has published an account of a child 2 years and 3 months old, who had menstruated regularly for three months. The mammæ and external genitalia were in a very forward state of development—the pubes and axillæ being hairy. When stripped the child's appearance was that of a fully developed woman. She weighed 40 lb.

(XLV.) In Lesser's case, menstruation began at the age of 3 years, and continued to be fairly regular for the next eighteen months; until then she appeared normally developed. Her general intelligence was good. At 4, an unusual growth of hair all over her body began to be apparent. When 6 years old the whole of her body—but especially the lower limbs—was covered with hairs, which were more developed than in a hairy adult man. The pubic hair development was more than in most adult females. The cheeks and chin were bearded; but the hair of the head was only normally evolved. It is evident that in this case we have to do with something more than hetero-chronic hirsuteness, which is the commonest kind of hairiness in the precocious.

### *Three to Four Years.*

(XLVI.) Menstruation supervened at the age of 3 years in a child seen by Astley Cooper, whose mammæ and external genitalia were also precociously developed. When  $7\frac{1}{2}$  years old she was 4 ft. 1 in. high, and resembled a thick-set young woman. Her pelvic development was so considerable, that Cooper thought she might well have borne a child.

(XLVII.) Smart's patient began to menstruate when  $3\frac{1}{2}$  years old, the exact date of her birth having been verified from the Register. She was a large child at birth; and her first tooth was cut at the ninth month. She was born in Manchester, being the second of four children, all of whom were normally developed. When 5 years and 4 months old she was robust and rosy looking, her height being 3 ft. 7 in., and her weight 52½ lbs. She was then much bigger, taller and heavier than her eldest sister, who was two years her senior. She was remarkably plump, with the contour of puberty, especially about the thighs and nates. The hair of her head was unusually abundant for her age. The bust was full and womanly, "The breasts being larger and more protuberant than those of most girls who have recently attained puberty; and the characteristic lobulations of the glands can easily be felt." She had cut all her milk teeth. The left palpebral fissure was somewhat smaller than its fellow, owing to slight congenital defect. The pelvis was very large. External genitalia abnormally developed with hairs on the mons veneris. Vagina capacious, with hymen. No indications of sexual propensities and no special enlargement of cerebellar part of head. Her general appearance—of which a good figure is given—that of a short, thick-set young adult. Expression somewhat childish. "The intellectual and moral faculties show no signs of precocity at all commensurate with the forward state of the bodily development." Her diet had been like that of the rest of the family. Her mother began to menstruate at 16, and married at 18; she had been a factory hand.

(XLVIII.) Grant saw a child aged  $3\frac{1}{2}$ , both of whose mammæ were like those of a fully grown woman, although in other respects she was like children of her own age.

(XLIX.) In Clendinnen's case, menstruation was established between the third and fourth years. When 9 years old she looked like a girl of 12, and the mammary development was that of a young woman of 17 or 18. Skiagraphy showed that the proximal epiphyses of the phalanges, and the distal ones over the metacarpal bones, were all completely united to the shaft, and the ossification of the carpal bones was complete: that is to say, the skiagraphic appearances of the hand were like those of a woman 18 years old.

(L.) In a child 5 years and 3 months old, who had menstruated regularly for two years, Gaugiran found that precocious sexual development was correlated with great increase in bodily development. She was 3 ft. 10 in. high, and she had already cut several permanent teeth. The mammæ were large. When first seen by Gaugiran she was suffering from chlorosis, owing to arrest of the catamenia of two months' duration. By ordinary treatment the menses were re-established, and the chlorosis cured.

Remarking on this case St. Hilaire says:—"Dans les autres cas de menstruation précoce que possèdent les annales de la science, il ne paraît pas qu'un accroissement général très-marqué ait coïncidé avec l'apparition prématurée des règles."

As the foregoing cases show, this is no doubt the rule, but the cases in my list also show that there are striking exceptions to it.

(LI.) In this connection reference may be made to a remarkable instance described by Jacobson, in which a female child  $3\frac{1}{2}$  years old was affected with nearly universal giant growth, which was first noticed soon after birth, and had since progressively increased. The parts involved were the genitalia, face, left side of the trunk and all the limbs.

#### *Four to Five Years.*

(LII.) Seuvre has published an account of a child, aged 4 years and 9 months, in whom menstruation had commenced. She had mammæ like those of a girl of 16; the pubes was hairy, the labia majora large and the pelvis broad. The latter indications began to be noticeable about a year previously, when her disposition changed and she became graver and more affectionate.

(LIII.) Lorient has described an instance of menstruation beginning at the age of 4 years.

(LIV.) A strong, healthy child,  $5\frac{1}{2}$  years old, who had been menstruating for a year, was seen by Tetley. On two occasions, when the catamenial flux failed to appear, she had attacks of epistaxis instead. The periods generally lasted for three days, the amount lost each time being about two ounces. She was the daughter of respectable parents. Her general aspect and contour resembled that of a child of her own age.

(LIVa.) Ausset found that a child  $4\frac{1}{2}$  years old—to whom he was called on account of vaginal hæmorrhage—was menstruating. She was much taller and heavier than is usual for her age: her height was 3 ft. 3 in., and she weighed 47 pounds. The muscular system was well developed, especially that of the thighs. The distance from one anterior superior iliac spine to the other was  $11\frac{1}{4}$  in. The breasts were like those of a pubescent female. The mons veneris and labia were also of the pubescent type.

#### *Five to Six Years.*

(LV.) Puech knew a child in whom menstruation began at 5 years, and continued regularly until  $8\frac{1}{2}$  years, when it ceased, and had not reappeared when the child was last seen, her age then being over 14.

(LVI.) A menstruating pubescent girl, aged 5 years and 4 months, was under Berry's observation. The mammæ and external genitalia were as well developed as in most young women of 16.

#### *Six to Seven Years.*

(LVII.) In a rachitic child, 6 years and 1 month old, seen by Casati, menstruation was just established. The breasts and external genitalia were largely developed, and on rectal examination the uterus was found to be large and of the pubescent type.

(LVIII.) Lutaud had under observation a girl 7 years old, in whom the catamenial flux was regularly established.

(LIX.) Wladimiroff, in a child  $6\frac{1}{2}$  years old, found that all the signs of puberty had already developed.

At later periods, so many examples of this kind have been reported that it seems unnecessary to cite individual cases.

### PRECOCIOUS SEXUAL DEVELOPMENT WITH CONCOMITANT INTRA-ABDOMINAL TUMOUR (13 Cases).

(LX.) Rein exhibited at the Kieff Obstetrical and Gynæcological Society in 1894, a female child, aged 6 years, in whom menstruation had supervened one year previously. The mammæ, external genitalia, and pubic hair growth resembled those of a girl of 14. There was considerable abdominal enlargement; and physical examination revealed the presence of a thick-walled fluctuating ovarian cyst. This was successfully removed by laparotomy, and proved to be a multilocular cystoma of the left ovary. Recovery. On the third day after the operation sanious vaginal discharge appeared.

(LXI.) At the Cologne Obstetrical Society, in 1897, Brohl gave an account of a girl, 7 years old, with a large abdominal tumour, which was successfully removed by laparotomy. It proved to be a non-malignant polycystic tumour of the left ovary, the cysts containing dark, glairy fluid, with secondary cysts springing from their walls. There were but few adhesions. The child was in good health when last heard of, nearly two years after the operation. This patient commenced menstruating two months before Brohl saw her, when there was a free growth of pudendal hair, although in other respects she was still child-like. The menstrual discharge disappeared after the operation.

(LXII.) In an infant, 2 years old, with an intra-abdominal tumour of the lower part of the abdomen, Hoffmann found signs of precocious puberty—enlarged mammæ and menstruation, the latter of two months' duration. Two months previously she had an attack of acute peritonitis. The abdominal tumour having increased, peritonitis having recurred, and the patient becoming emaciated, Hoffmann did laparotomy nine months later; and removed a large cystic sarcoma of the left ovary, the tumour containing seven pints of fluid. There were many adhesions. The child's uterus was as large as that of an adult nullipara. Death ensued thirty-three hours after the operation.

(LXIII.) In Clement Lucas' case, a pale and anæmic child, 7 years old, was brought to him with a large, mobile tumour of the lower part of the abdomen on the left side, which was first noticed two months previously. The mammæ were as large as oranges, the mons veneris prominent and hairy. She had several times experienced periodic sanious vaginal discharge, which was indistinguishable from the menstrual flux.



"The abnormal development of the sexual organs caused the child to have a very peculiar appearance, for the contrast of height and figure, with the enlargement of the mammæ, gave her the aspect of a dwarfed woman." The tumour was successfully removed by abdominal section, and it proved to be a soft, œdematous, ovarian fibroma, mostly solid and of great size, its weight 1 lb. 1 oz. A single cyst, the size of a walnut, was contained in it, the cyst contents being clear fluid. The patient recovered from the operation, and the signs of premature sexual development soon afterwards began to diminish, although on the second day after the operation there was some sanious vaginal discharge, as commonly happens after similar operations in adults. When last heard of, nearly two and three-quarter years later, she was in good health, being free from any return of the disease and from the sexual precocity.

(LXIV.) Croom met with ovarian sarcoma, concomitant with signs of precocious puberty, in a girl 7 years old. The history given was that seven months previously the child had been raped by a boy. Soon afterwards she became subject to periodic sanious vaginal discharge, and some abdominal enlargement was first noticed. Even at birth the mother said the mammæ were unduly large. On examination the child was found to present a pubescent aspect, the external genitalia and mammæ being of unusual size and the pubes covered with hairs. Physical examination revealed a smooth, tense, firm intra-abdominal tumour, which was fairly mobile, a *bruit* being heard on each side of it. It was at first thought that the tumour might be due to precocious pregnancy; but this was disproved by vaginal and rectal examination, which revealed a large but empty uterus, into which the sound penetrated for three inches. The child was intellectually dull, and below the average in this respect. Abdominal section brought to light a large tumour of the left ovary, which after removal weighed 6 lb. The opposite ovary was small and undeveloped, the uterus being large. The tumour was smooth, soft and vascular; on section numerous cysts were exposed, none of them very large, embedded in the soft vascular stroma. They contained gelatinous fluid. Histological examination showed that the tumour was round-celled myxo-sarcoma. She made a good recovery; and on leaving the hospital six weeks after the operation, it was found that the enlarged mammæ, external genitalia and other signs of precocious sexual development had very much diminished, and there had been no return of the sanious vaginal discharge.

(LXV.) I. T., 9 years old, was attended by Malins for a large intra-abdominal tumour. For the last five months she had been subject to irregular discharge of blood by the vagina, which was thought to be menstruation. She was a pale, thin, under-sized child. The tumour was removed by abdominal section. Its weight was 1 lb. 1 oz. The tumour looked like an œdematous uterine myoma, but it grew from the right ovary. On section its centre was firm and solid, its periphery vascular and sponge-like, containing numerous cysts. Histologically



examined its structure was that of sarcoma. She died of exhaustion on the third day after the operation. Although the catamenial nature of the vaginal hæmorrhage in this case is not clearly determined, I have nevertheless thought it well to include the case here.

(LXVI.) In Pitman's case, a large sarcoma of the left adrenal, in a child 3 years old, was concomitant with general melasma, hypertrichosis, and external genitalia like those of an adult. At birth she was a fine, well-made infant. Hair began to appear all over the body when she was only 1 year old. She subsequently became very fat. The abdominal tumour was only noticed five weeks previously. When seen by Pitman she was large, tall, and developed beyond her age; the general contour of the thighs, &c., being decidedly pubescent. The overgrowth of hair was especially pronounced in the pubic region. She had never manifested any sign of menstruation. After death the tumour was found to consist of soft, spongy, encephaloid material; it measured 6 by 5 inches. There was a secondary nodule in the liver. The uterus and ovaries were small and not unduly developed.

(LXVII.) Colcott Fox has described a somewhat similar case. His patient was only 2 years old. She was rachitic, remarkably fat, the whole surface of the body being very hairy, especially about the genital and pubic regions, but there was no pigmentation of the skin. The vulva, labia, and clitoris were excessively developed. Mentally she was very dull, and of somewhat cretinoid aspect. She had an intra-abdominal tumour the size of a cocoa-nut, which had been noticed for eighteen months. Her appetite had been ravenous. She was the fourth child of parents who appeared to be healthy, and was suckled till sixteen months old. When aged only ten months, her mother says she was "enormous." She died rather suddenly after the supervention of acute vomiting, dyspnœa and cyanosis. At the necropsy a tumour the size of a cocoanut was found, occupying the site of the left adrenal, which indented the top of the kidney, but this organ appeared not to be infiltrated. The tumour weighed  $1\frac{1}{2}$  lbs. and consisted of soft large-celled sarcomatous substance, containing numerous hæmorrhagic areas. There were secondary growths in the mesenteric glands and left lung. The inferior vena cava was extensively thrombosed. The uterus and ovaries were large. The body was very fat.

(LXVIII.) Grenitz' patient first menstruated when 1 year and 7 months old, the uterus and the mammæ were of the pubescent type, and the pubes was covered with hairs  $\frac{3}{4}$  in. long. At the necropsy one ovary was the seat of a large cysto-sarcomatous tumour; the other ovary was much enlarged, and very vascular.

(LXIX.) In Bevern's case menstruation commenced at  $3\frac{1}{2}$  years. When only 3 years old she was very stout for her age, and long black hair had formed on the pubes. Both ovaries were sarcomatous.

(LXIXa.) In a child 4 years old, with a large cysto-sarcomatous tumour of the left ovary, Schwartz noticed vaginal hæmorrhages and

the external genitalia were unduly developed although there was no pudendal hair. The tumour was successfully removed by laparotomy, and it was then noticed that the uterus and right ovary were unduly large and vascular.

(LXIXb.) Marjolin and Gedike have each reported a similar case. Marjolin's patient was 9 years old, and a cysto-sarcomatous tumour of the right ovary filled the lower half of the abdomen; in Gedike's case the left ovary was sarcomatous and the right cystic.

### PRECOCIOUS PREGNANCY (15 Cases).

(LXX.) Molitor, in 1878, communicated to the Belgian Academy of Medicine the history of "*Un cas de précocité extraordinaire observé à Oberpallen chez une fille de 8 ans.*" This child was born with many of the external signs of puberty, including pubic hair. Menstruation supervened at the age of 4 years. When 8 years old she was impregnated by her cousin, aged 37, and was subsequently delivered of a three months embryo with mole formation.

(LXXI.) Schmidt has described a similar case. At birth the child presented signs of premature sexual development. When 2 years old menstruation supervened. She was delivered of a full-term, dead child, when 8 years and 10 months old. She then resembled a woman of 17. Other instances of conception at or near the eighth year have been reported by Müller, Carus, Kussmaul, and others.

(LXXII.) The history of one of these child-mothers (9 years and 8 months old), who was delivered at term of an infant weighing 7 lbs., has been reported by Dodd. At birth there were signs of sexual precocity, and the axillæ and pubes were hairy. Menstruation began at the twelfth month. She was impregnated prior to her ninth year. The infant died soon after birth of convulsions; there were only three toes on its left foot. Although so young, this girl had been a good worker, and did all her mother's washing.

(LXXIII.) In Curtis' case, impregnation took place before 10; she was delivered of a full-grown male child weighing 8 lbs., when 10 years, 8 months and 7 days old. The labour was natural. She had menstruated a few times before conception. The father was a boy of 15.

(LXXIV.) Gleave's patient was born on July 15, 1885, and was delivered of a well-formed child weighing 5 lbs.—which lived for a few days—on September 10, 1895. Although she had menstruated since the age of 5 years, she was child-like in aspect. There was no mammary enlargement and no milk, the child being suckled by its grandmother.

(LXXV.) Rowlett has published the history of "A case of puberty and pregnancy in a girl 10 years old." Signs of premature sexual development were manifest soon after birth, and menstruation supervened at 1 year. At the time she became a mother the mammæ were largely

developed, her height was 4 ft. 7 in., and she weighed 100 lbs. The child was born at term, and weighed 7½ lbs.

(LXXVI.) Lindstedt has described the case of a girl who menstruated at 10½ years, had connection at 11, and at 12 was delivered of a child at term, which weighed 6½ lbs.

(LXXVII.) Mitchell, of Locust Grove, Ga., U.S., met with a girl of 13, who was already the mother of three children. She was delivered of her first child when 11 years, 3 months and 23 days old, and at the age of 13 years, 1 month and 15 days she gave birth to twins.

(LXXVIII.) Instances of pregnancy at 11 years have been reported by Montgomery, Williams, Willard, and others.

(LXXIX.) Delivery at 11 years and 6 months, in a negress, has been seen by Kilpatrick; at 11 years and 9 months by Stallcup; at 11 years 11 months and 22 days by Hall, and at not quite 12 years by Fox.

(LXXX.) Harris' patient was delivered at term, when 12 years and 9 months old. Before impregnation she had menstruated for one and a-half years. She had plenty of milk, and suckled her infant.

(LXXXI.) Delivery took place at the same age in Allen's case, the child weighing 9 lbs. She got through her confinement without any medical aid. The father was a boy 14 years old.

(LXXXII.) Walker delivered a girl 12 years and 8 months old of a healthy living child.

(LXXXIII.) Harris reports that a mulatto girl, who began to menstruate when 11 years and 9 months old, gave birth to a female child before she was 13. She had a second child at the age of 14 years and 7 months. The father was a white youth 17 years old.

(LXXXIIIa.) Allen lately saw a negro girl, 11 years old, who was 7 months pregnant. She had the aspect and character of a child 11 years old, being fond of dolls and childish amusements. Her height was 4 ft. 5 in. No indication of rachitis or other disease. Menstruation began at 10 years and 3 months. At full term she was delivered naturally of a healthy child, weighing 7 lbs. 2 oz.; she then was 11 years and 8 months old. Both mother and child did well.

## (B) PRECOCIOUS SEXUAL DEVELOPMENT IN MALES (20 Cases).

(LXXXIV.) White has related the remarkable history of Philip Howorth, who began to lose his infantile appearance when 1 year old, and soon came to resemble a growing boy. He became pubescent when between 2 and 3 years old. At the latter age he was 3 ft. 4½ in. high, and weighed 51½ lbs. He had the genitals of a man, was clever, strong and muscular. At the end of his sixth year he arrived at his full height, 5 ft. Subsequently growth quite ceased; thus at the age of 22, when he married, he was but little different from other persons of his own

age. He followed the occupation of ladies' shoemaker. When last heard of his wife had been confined of a girl. Howorth then showed no signs of premature decay. White believes that "the changes which took place in this boy had their origin *in utero*."

(LXXXV.) Even more extraordinary is the history of Thomas Hale. "Prodigium Willinghamense," who was born at Willingham, near Cambridge, in 1741. He was lusty at birth, the external genitals being remarkably large. Signs of puberty appeared at the end of his first year. His mother suckled him for nine months, and is said then to have died of exhaustion. When only 2 years and 10 months old he was 3 ft. 8½ in. high, and his weight was 4 st. 2 lbs. He was then pubescent, having the voice and strength of a man. He died when 6 years old with every appearance of senility.

In his "Natural History," Pliny mentions a somewhat similar case in a native of Salamis, who attained the height of 4½ ft. when 3 years old. He was dull and inactive, and died when 3 years old of senile debility.

(LXXXVI.) In 1806 Dupuytren exhibited at the Paris Medical Society a robust pubescent child, 3½ years old, who weighed 57 lbs. and was 3½ ft. high. He manifested signs of puberty prior to his second year.

(LXXXVII.) Sauvages has related the history of a "man-boy," who at the age of 5 years was 4 ft. 3 in. high, and at 6 he had increased to 5 feet, being proportionately big. At the end of his fifth year his beard began to appear, and at 6 he was as bearded as a man of 30, presenting all the signs of puberty. He was strong, and could carry heavy burdens. After his sixth year he ceased to grow, and soon became feeble and almost imbecile.

(LXXXVIII.) The boy Leduc—as reported by Moreau de la Sarthe—was 4 ft. 5½ in. high when 10 years old; at 11 he was the same height, being very bulky and big-limbed. His muscular development was remarkable, resembling that of an adult athlete. His head was large, his physiognomy "un peu stupide," and the passions were hardly at all developed. At birth he weighed 16 lb. His first teeth were cut at the sixteenth month. When 3 years old considerable enlargement of his right testis was noted. At 6 he looked like a little man, the signs of puberty were present, and he was of great strength for his age. His testes were larger than those of most adult men. He had a deep voice, with a considerable development of hair on the chin, pubes and trunk. At 7 his dentition was that of a youth of 14; his skin being hard and thick, and covered with "taches jaunâtres et ruguses, surtout au dos."

(LXXXIX.) In Presle, Duplessis' case, signs of puberty were manifested at the eighteenth month. At birth the infant was of normal size, but the cranial ossification was precocious, the fontanelles being closed. His appetite was voracious, and his growth rapid. When 3 years and 1 month old he was 3 ft. 3 in. high and weighed 49 lb. He then had twenty teeth, and a nascent moustache. The genitalia were of great

size, especially the penis—being out of all proportion to his age and even to the development of other parts of his body—and erection was followed by ejaculation. The testes were large; the pubic hairs and muscular system well developed. He had also a large head, the enlargement being especially pronounced in the cerebellar region.

(XC.) When this child was 15 months old, his mother noticed that the genitalia were unduly large and the pubes hairy. When 2 years old these parts were like those of a pubescent youth. Between the fourth and seventh years he often manifested signs of sexual excitement, and had emissions, but no spermatozoa were found in the fluid discharged. He was under Campbell's observation for ten years. When 14 years old his muscular development was remarkable, resembling that of a fully grown adult man. He was bearded, and had shaved for several years. His education was defective, as he had never attended school.

(XCI.) Worger has lately described an extraordinary instance of premature development of the sexual organs in a male foetus. The mother, a healthy primipara, aged 25, was delivered after a normal labour. The child's penis was at once seen to be abnormally large and semi-erect, reaching to the umbilicus. It looked like the penis of a youth of 16, and was four inches long. There was phimosis with pinhole meatus; and some pigmented naevoid excrescences around the meatus. The scrotum was abnormally large and rugose, hanging half way down the child's thighs. The left testis was in the scrotum, and there was an inguinal hernia on this side; the right testis was undescended. The infant only survived for ten hours; the cause of death is not stated, and there was no necropsy. In other respects the infant was well formed.

(XCII.) Ruelle observed a boy aged  $3\frac{1}{2}$ , who was then as strong and muscular as a youth of 8. His generative organs were of adult size, with pubic hair development and hair on the upper lip and cheek, a deep male voice, and he could ejaculate.

(XCIII.) Breschet has published a description of a boy 3 years and 1 month old, in whom all the signs of puberty were manifest. He was 3 ft.  $6\frac{3}{4}$  in. high. The penis when erect measured  $5\frac{1}{4}$  in.; but the testes were not proportionally developed.

(XCIV.) Stone has met with a remarkable instance of precocious sexual development in a boy aged 4, who looked like a youth of 10. He was well formed and athletic, with a wonderfully developed muscular system; his height 4 ft.  $\frac{1}{2}$  in., and his weight 70 lb. The penis and sexual organs were those of a man, with abundant pubic hair. His disposition was intelligent and lively. His back was spotted with "the acne of puberty." His father is said to have manifested sexual precocity, having had connection when only 8 years old.

(XCV.) South has given a very careful and detailed account of a case of this kind, in which hypertrichosis coincided with the premature sexual development. John Sparrow was born at Long Melton, Suffolk, his parents belonging to the labouring class, and at the time of his birth

they were about 27 years old. He was the youngest but one of four children. His mother said he was very large at birth, and was covered all over with black hairs, she herself being dark. The external genitalia were also of unusually large size, and he had a hoarse, harsh voice. At birth the fontanelles were large and patent, but they closed soon afterwards. By the fourth month the penis had increased greatly in size, especially the glans, which already began to be uncovered by the prepuce, and the pubic region was thickly covered with black hairs. At the fifteenth month the glans penis was quite uncovered ; he then was fat and robust. The first dentition was completed before the end of his second year. After the fifteenth month he grew with great rapidity, and his legs became bowed. She then ceased suckling him. Soon afterwards the black hair on his head was shed and a crop of light curly hair appeared in its place. He was a passionate but otherwise tractable child.

South first saw him when he was rather over 4 years old. He was at once struck by the size and shape of his head and by his short thick neck; the occipital region being remarkably large and prominent, while the forehead was high and spacious. The expression was child-like, but intelligent. His upper lip was darkened with hair, as in a youth of 16. The sebaceous follicles of the *alæ nasi* and adjacent parts were distended with inspissated sebum, as is often seen at puberty. His voice was deep and hoarse ; but there was no *pomum Adami*. When stripped the aspect of the trunk, &c., was that of an adult, the chest being remarkably large. The penis, scrotum and testes were just like those of a man, the glans penis being quite uncovered "as if he had been circumcised." The pubes and scrotum were covered with thick curly hairs, as also was the trunk, especially the dorsal region. The muscular system was well developed, giving the idea of great strength, which he possessed, for he could easily lift half a hundred-weight with one hand. The hands and feet were large. The bones of both legs were bent forwards and outwards. "Though the boy is so completely evolved, his faculties are those of a child." Height 3 ft. 7 in. ; weight 64 lbs. Circumference of the head at the level of the orbits 1 ft. 9½ in., from root of nose to occipital tubercle, 1 ft. 2½ in.

In a similar case recorded by Gerberonius, in the seventeenth century, hypertrichosis was also met with. Even at birth this infant's body was covered with hairs ; and when 3½ years old he was 3 ft. high, pubescent and very hairy all over.

(XCVI.) In a boy, 6 years old, seen by Gautier, sexual precocity was associated with the development of pigmented patches all over the body. These began to appear when he was 2 years old, as also did the abnormal development of the genitalia, &c. The hair system was but poorly evolved.

(XCVII.) In Smith's case a boy, 6 years old, had genitalia like those of an adult, a thick crop of pubic hair, and a short dark moustache. The muscular system was well developed. His height, 4 ft. 2 in. ; his

weight, 74 lbs. The premature development dated from his fourth year.

(XCVIII.) Pryor has reported an instance at  $5\frac{1}{2}$  years. The genitalia resembled those of a young adult ; and other signs of puberty were present. He was addicted to self-abuse and had emissions. Signs of precocity dated from the middle of his fourth year.

(XCIX.) A boy, 6 years and 7 months old, who appeared to be as developed as a youth of 18, has been seen by Wood. He was big, muscular, deep voiced, and had hair on his upper lip. At birth he was not unusually large ; but after the first year he increased very rapidly. Signs of precocious sexual development began to appear in the second year ; and at 3 the pubes was hairy. He was wild, mischievous and of a wilfully destructive nature ; for various offences of this kind he was committed for five years to an industrial school. He commenced to cut his permanent teeth at 4 to 5 years. His father was in a lunatic asylum for melancholia.

(C.) Bidwell's observation refers to a boy, 5 years and 2 months old, with penis and testes like those of an adult man. There was a considerable development of pubic hair ; he had a downy moustache and a deep voice. His height was 4 ft.  $3\frac{1}{2}$  in., and his weight  $82\frac{1}{2}$  lbs.

(CI.) In a case described by Douglas, the precocity seemed consequent on an acute febrile attack, which followed a chill when the child was 3 years old. Up to that time his development had been normal. Shortly after recovery from this febrile attack the sexual organs began to grow unduly, his voice altered and he increased rapidly in size. When 4 years and 3 months old the penis, scrotum and testes resembled those of a man, the pubes was hairy, the muscular development very great, and the features were coarse and large. Mentally he was sluggish, obstinate, self-willed and addicted to masturbation. His height was 3 ft.  $10\frac{1}{4}$  in., and his weight 54 lbs. ; the circumference of his head just over his ears was 19 inches.

(CII.) Bruce Clarke has given an account of the child M., whose development proceeded normally until he was about 1 year old, when, having acquired a voracious appetite, he increased with prodigious rapidity. The sexual organs participated, and soon acquired virile characters. When seen by Clarke he was  $3\frac{1}{4}$  years old, but looked like a robust youth of 12. The tibiæ were bowed as in rachitis. The prominence of the *pomum Adami* was well marked. The circumference of the head at the level of the occipital protuberance was 21 inches. His voice was cracked. Height 3 ft.  $8\frac{1}{2}$  in. ; weight 62 lbs. This boy was the third of five children.

(CIII.) The child, Henry Walker, of Kiburge, when 5 years old resembled a youth of 14 in his height and size ; and his genitalia were like those of a full-grown man. He was very strong and muscular, carrying heavy burdens with ease, and doing man's work. A seventeenth century case, reported in the records of the French Academy of Sciences,



resembles the foregoing. When 4 years old, this boy appeared to be "*apte à la génération*;" at 7 his figure and development was like that of an adult man, and he had a beard. After this period he ceased to grow.

(CIV.) An anonymous correspondent has reported an instance in which a boy 13 years and 3 months old impregnated a young female, with whom he had cohabited for several months. His sexual organs were well developed. He also refers to the case of a boy of 14, who impregnated a girl of the same age. These are believed to be the earliest examples of precocious paternity extant; but more careful observations in this direction are needed.

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 (LXVIII.) *Würzburger med. Zeitschr.*, Bd. iii., 1862, S. 321.  
 (LXIX.) Veit's *Handbuch der Gynäkologie*, Bd. iii., Hälfte i.  
 (LXIXa.) *Arch. f. Gyn.* Bd. xiii. 1878, S. 475.  
 (LXIXb.) Marjolin, *Bull. de la Soc. de Chir.*, Paris, vi., 1861, 667 ; Gedike, *Arch. f. med. Erfahrung* (v. Horn), Berlin, 1825, S. 189.

## PRECOCIOUS PREGNANCY.

- (LXX.) *Bull. Acad. Roy. de Méd. de Belg.*, Brux., 1878, 3 S., xii., p. 77.  
 (LXXI.) Cited by Sue, *Essais Historiques, &c.*, Paris, 1779.

- (LXXII.) *Lancet*, 1881, i., p. 601.  
 (LXXIII.) *Boston Med. and Surg. J.*, Feb. 19, 1863, p. 49.  
 (LXXIV.) *New York Med. Record*, Nov. 16, 1895, p. 715.  
 (LXXV.) *Transylvania Med. J.*, Lexington, Ky., U.S., 1834, viii., p. 447.  
 (LXXVI.) *Tira*, 1891, No. 15.  
 (LXXVII.) *Atlanta Med. and Surg. J.*, April, 1896.  
 (LXXVIII.) *Edin. Med. and Surg. J.*, xxx. p. 231; *Amer. Weekly Med. J.*, Louisville (U.S.), 1874, p. 21; *Am. Obstet. J.*, iii., 616.  
 (LXXIX.) *Phila. Med. and Surg. Reporter* (U.S.), 1873, p. 417; *Trans. Texas Med. Assoc.*, 1884, xvi., p. 193; *Semi-monthly Medical News*, Louisville (U.S.), 1859, p. 177; *Daniel's Texas Med. J.*, 1889-90, v., p. 19.  
 (LXXX.) *Amer. Obstet. J.*, 4, 187.  
 (LXXXI.) *Brit. Med. J.*, 1885, ii., p. 913.  
 (LXXXII.) *Boston Med. and Surg. J.*, 1846-7, xxxv., p. 122.  
 (LXXXIII.) *Am. J. Obstet.*, 1874.  
 (LXXXIIIa.) *Maryland Med. Jour.*, Oct., 1901.

#### B. PRECOCIOUS SEXUAL DEVELOPMENT IN MALES.

- (LXXXIV.) *Med. Chir. Trans.*, i., p. 276.  
 (LXXXV.) Dawkes, *Phil. Trans.*, London, 1745, xliii.  
 (LXXXVI.) *Bull. Fac. de Méd. de Paris*, 1812, p. 148.  
 (LXXXVII.) *Hist. de l'Acad. des Sci.*, 1758, p. 43.  
 (LXXXVIII.) *Journ. de Méd. Chir., etc.*, Paris, 1806, xii., p. 274.  
 (LXXXIX.) *Journ. Compl. du Dict. des Sci. Méd.*, Paris, 1821, viii., p. 277.  
 (XC.) Campbell, *Med. Press and Cir.*, 1895, No. 2591, p. 551.  
 (XCI.) *Lancet*, 1899, ii., p. 1587.  
 (XCII.) *Bull. de l'Acad. de Méd. de Paris*, Feb. 28, 1843.  
 (XCIII.) *Bull. Fac. de Méd. de Paris*, 1820-21, t. vii., p. 98.  
 (XCIV.) *Amer. J. Med. Sci.*, 1852, N.S., xxiv., p. 561.  
 (XCV.) *Med. Chir. Trans. Lond.*, 1823, xii., p. 76.  
 (XCVI.) *Rev. méd. de la Suisse Romande*, 1884, t. iv.  
 (XCVII.) *Brewster's Journal*, 1829.  
 (XCVIII.) *Amer. J. Obstet., &c.*, 1887, vol. xx., p. 245.  
 (XCIX.) *Lancet*, 1882, ii., p. 377.  
 (C.) *Phila. Times and Register* (U.S.), 1889, 4.  
 (CI.) *New York Med. J.*, 1889, Oct. 19, p. 432.  
 (CII.) *Trans. Path. Soc.*, London, 1886, vol. xxxvii., p. 358.  
 (CIII.) Cited by Gould and Pyle, *Anomalies of Medicine, &c.*, 1897, p. 344.  
 (CIV.) *Brit. Med. J.*, 1887, i., p. 918.

*NEW HONORARY FELLOW.*

On the recommendation of the Council, the Professor of Obstetrics and Gynæcology in the Medical Faculty of the University of Leipsic, Dr. PAUL ZWEIFEL, Director of the University Frauenklinik, who in October, 1900, became Rector of that University, has been elected an Honorary Fellow of the British Gynæcological Society.

*NEW FELLOWS.*

The following gentlemen have been elected to the Fellowship of the British Gynæcological Society:—

Samuel Lee Craigie Mondy, M.R.C.S.Eng., L.R.C.P.  
Lond., 99, Shaftesbury Avenue, W.

Cecil Edward Last, M.R.C.S.Eng., L.R.C.P.Lond., West  
London Hospital, W.

Richard Rothwell Mowll, M.B.Lond., L.S.A., 2, The  
Crescent, Surbiton, Surrey.

Professor E. Bumm, M.D., Director of the Frauenklinik  
and Poliklinik in the University of Halle.

Robert Forbes Bowie, M.R.C.S., L.R.C.P., Staff Surgeon  
R.N., H.M.S. "Gibraltar," Cape Station.

Charles Edward Gosling, M.D.Bru.x., M.R.C.S., L.S.A.,  
The Fivelands, Moseley, Birmingham

John Robert Johnson, M.R.C.S., L.R.C.P., 7, Lancaster  
Place, Richmond, Surrey.

Ralph William Wilson, M.D., C.M.Edin., The Moorings,  
Ennerdale Road, Kew Gardens, Surrey.

## REVIEWS.

BEITRAEGE ZUR PATHOLOGISCHEN ANATOMIE DER GRAVIDEN TUBE. Von Dr. Med. AUGUST PETERSEN, Kopenhagen. Pp. 84, royal 8vo. Berlin: Verlag von S. Karger, 1902. Price 3m. London: Williams and Norgate.

In this work the author discusses the *rôle* of salpingitis in the pathogenesis of tubal pregnancy, and the tubal implantation of the ovum; the work is, in fact, the thesis he sustained at the University of Copenhagen in 1900, materially abbreviated by the omission of any consideration of the other conditions that have been considered important in the pathogenesis of tubal pregnancy, and of the details of 13 of the 14 cases from Professor Leopold Meyer's Clinic, which were the subject of his researches, one case being given as a sample of the way the notes were kept. In 12 out of the 14 cases Petersen found evidence of salpingitis apparently older than the pregnancy, decreasing in intensity from the uterus towards the seat of the pregnancy, and therefore not due to irritation from the presence of the ovum; in nine cases he was able to examine the non-gravid tube, and in all found signs of inflammation, in nearly all of the same intensity and extent as in the gravid tube, showing that the source of inflammation was to be sought in the uterus. The implantation of the ovum had generally taken place at the limit between the healthy and inflamed portions of the mucosa, and Petersen has therefore no hesitation in affirming that chronic salpingitic processes should be accepted as factors in ectopic pregnancy.

Petersen found evidence of decidual reaction, not only in

the gravid but in the non-gravid tube also, and that even in places where the mucosa showed signs of some catarrhal inflammation. The mucosa at the seat of the implantation of the ovum was generally, but not always, healthy, and if a catarrhal mucosa can exhibit decidual reaction, such exceptions are not improbable. Our readers, however, will remember that in von Tussenbroeck's case of ovarian pregnancy, the walls of the Graafian follicle had not undergone any decidual alteration, and we must therefore conclude that Webster's decidual reaction is not a *sine quâ non* condition for the implantation of the ovum. In regard to the implantation of the ovum, the existence of a reflexa, and the decidual modifications of the tube wall, in the majority of cases examined by him, he found no more than a sort of decidual capsule, a formation he deemed more in accord with mechanical facts than others that have been reported. The effect of tubal gestation on the mucosa is chiefly mechanical from pressure or dilatation, on the muscosa it induces an hypertrophy of pregnancy. Decidual reaction in the tube is neither as complete nor as regular as in the uterus, and is, in his experience, merely a modification of connective tissue cells, chiefly in the neighbourhood of the placenta.

#### MERCK'S REPORT ON THE YEAR 1901.

This issue of the valuable Annual to which we have repeatedly drawn attention, is the 10th of the English, the 15th of the German volume. As in previous years, it presents without bias or partiality a concise *résumé* of the publications about new and recent drugs in the medical, dental, veterinary and pharmaceutical press, and is of the greatest assistance to all who may consult it, either in order to keep abreast with the advances of nosological therapeutics, or merely as a work of reference. Among the drugs especially interesting to our readers we may instance: BACILLOL, a soluble tar product resembling lysol, but odourless and much cheaper, a 1 per cent. solution rendering most bacilli innocuous in from one to two minutes. HERMOPHENYL, a mercurio-sodii phenol

disulphonate containing 4 per cent. of metallic mercury, which can be incorporated into a non-irritating 1 per cent. soap for disinfecting the hands, for which purpose however Strassmann recommends LYSOFORM, which leaves the skin flexible and elastic. DERMOSAPOL, a super-fatted cod-liver oil soap, recommended by Rohden for cervical erosions, endo- and perimetritis and metritis. EUMENOL, a powerful catamenial stimulant of striking effect in the dysmenorrhœa of the barren, in menorrhagia, even when associated with endometritic and adnexal inflammation, and in the hæmorrhages of retroversion and pregnancy. STYPTICIN, a most valuable means of checking internal or external hæmorrhage, equal and in some respects superior to ergot, hydrastis, or perchloride of iron. GELATINE is recommended as a prompt and easy means of suppressing hæmorrhage in pregnancy (hypodermically) and that of metritis, endometritis, or following curettage, in 10 per cent. warm intrauterine injections. Of LAMIUM ALBUM, credited as a hæmostyptic by Zacatus Lusitanus, the extract induces a fairly lasting contraction of the uterus, and benefited cases of metrorrhagia, from fibroma (50 per cent.), and from hæmorrhagic metritis (70 per cent.); not so good as ergot in post-partum hæmorrhage. An extract of the SUPRARENAL MEDULLA has been found by Schäfer more effective than any other body in inducing contraction of the uterine muscle, whether introduced into the uterus or given internally; in post-partum hæmorrhage, the injection of a warm decoction (30 grs. to 19 oz.) acts directly on the arterioles; its hæmostatic effect may be increased by the addition of 60 grs. of chloride of calcium. OVARIA SICCATA has been found to benefit younger patients in whom arthritis deformans has been associated with menstrual disturbance; SICCO, dried hæmatogen, cases of chlorosis and anæmia, after grave hæmorrhage, menorrhagia, metrorrhagia, parturition or miscarriage. A pure acid free (30 per cent.) solution of peroxide of hydrogen may now be obtained and is most useful diluted for the treatment of inoperable cancer (12 per cent.), for detaching adherent dressings (4 per cent.), and in the vulvo-vaginitis of children (3 per cent.). The use of COCAIN

HYDROCHLORAS in tardy labour was last year warmly advocated by Westphalen, who finds that it stimulates rather than suppresses the action of abdominal pressure ; he deems it indicated if the os uteri be nearly or quite dilated, the head low and membranes ruptured, and if at the same time expulsive pains are absent or deficient ; and also in uterine spasm, and persistent pain in the intervals of uterine contraction.

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PUBLICATIONS RECEIVED.

We regret, owing to pressure on our space, to have to postpone several reviews already in type, and for the present are unable to insert more particular notice of some of the following books and pamphlets received :—

FROM BAILLIÈRE ET FILS, PARIS :

Le Cancer du Sein. Par A. Le Dentu.

FROM L. BOYER, Paris :

Vade-mecum d'Obstetrique et Gynæcologie. Par Dr. Henri Fischer.

FROM HENRY KIMPTON, LONDON :

Essentials of Obstetrics. By Charles Jewett, M.D., &c.

FROM THE UNIVERSITY OF TORONTO :

Observations on Blood Pressure. By R. D. Rudolf, M.D., &c.

Transactions of the Section on Gynæcology of the College of Physicians of Philadelphia, vol. vi., 1900.

Transactions of the American Gynæcological Society, vol. xxvi., 1901.

Transactions of the North of England Obstetrical and Gynæcological Society for 1901.

Shock in Abdominal Operations. By George A. Hawkins Ambler, F.R.C.S.

Vaginal Cancer. By W. Roger Williams, F.R.C.S.

Preventive Hygiene. Second Edition. Pewtress and Co.

By GEORGE M. EDEBOHLS, M.D.: The Technics of Nephropexy, as an Operation *per se*, and as Modified by Combination with Appendicectomy and Lumbar Exploration of the Bile Passages: Migrated Ovarian and Parovarian Tumours; On Bandages for Nephroptosis; Is the Kraske Operation justifiable in Women?; Panhystero-kolpectomy: a new Prolapsus Operation; The Cure of Chronic Bright's Disease by Operation.

By WILMER KRUSEN, M.D., Philadelphia: Triple Ectopic Gestation; Instrumental Perforation of the Uterus.

- By HENRY J. KREUTZMANN, M.D., San Francisco, Cal.: The Uniform Principle in Performing Operations for Lacerated Perineum, Cystocele, Rectocele, and Prolapse; Transverse Suprapubic Division of the Skin in Performing Abdominal Operations.
- By PROFESSOR B. S. SCHULTZE, Jena: Damnschutz (Sammlung klinischer Vorträge, N.F., No. 278), Experimentelle Prüfung verschiedener Methoden Künstlicher Atmung Neugeborener.
- By PROFESSOR PAUL ZWEIFEL: Die Symphysiotomie mit besonderer Drainage des Spatium praevesicale sive Cavum Retzii per vaginam.
- By PROFESSOR ALPHONS VON ROSTHORN, Graz: Spencer Wells (obituary Notice, *a. d. Prager med. Wchns.*, 1897, No. 9); Hämorrhagischer Infarkt der Cervix (intra partum entstanden), 1901; Geburtshilfe und Frauenheilkunde an der K.K. deutschen Universität in Prag, in der zweiten Hälfte des Jahrhunderts, 1899; Einleitende Bericht Bemerkungen und Schlusswort zur Diskussion ueber die Behandlung der Myome (*Deutsches Gesellschaft f. Gynäkologie*, 1899); Erfahrungen ueber die momentanen Heilerfolge mittels der erweiterten Freund'schen Operation bei Krebs der Gebärmutter; Neuere Bestrebungen und Erfahrungen ueber die operative Behandlung des Gebärmutterkrebses, 1901; Bemerkungen ueber dasselbe Thema i. d. d. Ges. f. Gyn., 1901.
- By PRIVAT-DOCENT DR. FRITZ KLEINHANS, Assistent, Universitaets Frauenklinik in Prag: Zur intrauterinen Verwendung des Kolpeurynters; Ueber die Verwendung der Schleich'schen Anästhesierungsmethode bei gynaekologischen Operationen; Ueber einen Fall von Deciduoma malignum.
- By PRIVAT-DOCENT DR. LUDWIG KNAPP, Assistent, Universitaetsklinik, Prag: Geschichtliche Bemerkungen ueber Bedeutung und Aetiologie des vorzeitigen Abganges von Meconium.
- By PRIVAT-DOCENT DR. EMIL KNAUER, Assistent, Universitaets Frauenklinik zu Wien: Die Erfolge der an der Klinik Chrobak wegen Gebärmutterkrebses ausgeführten Vaginalen Totalexstirpationen.
- By DR. A. LANGER, Assistent, Universitaets Frauenklinik in Prag: Ueber Corpus-luteum-Abscesse.
- By DR. MAX STOLZ, Assistent, Universitaets Frauenklinik in Graz (Vorstand: Professor von Rosthorn): Zur Abnabelung des Neugeborenen.
- By DR. WALTHER SCHAUENSTEIN, Graz: Zur Bacteriologie des puerperalen Uterus-sekretes.
- By DR. FRITZ KERMAUNER, Graz, and DR. H. LAMERIS, Utrecht: Zur Frage der erweiterten Radikaloperation des Gebärmutterkrebses.
- By DR. FRITZ KERMAUNER: Neuere Anschauungen ueber die Blasenmole.



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*BRITISH GYNÆCOLOGICAL SOCIETY.*

THURSDAY, MAY 8, 1902.

DR. HEYWOOD SMITH, A VICE-PRESIDENT, IN THE CHAIR.

## SPECIMENS AND CASES.

A BILATERAL INTRALIGAMENTOUS FIBROMYOMA SHOWING EXTENSIVE MUCOID DEGENERATION. By ALFRED J. SMITH, M.B., M.A.O., F.R.C.S., Professor of Midwifery and Diseases of Women, Cecilia St. Medical School; Gynæcologist, St. Vincent's Hospital, Dublin.

THE case I am about to relate will, I hope, prove of interest to the Fellows, the more so that, after searching through the Transactions, I have not been able to find that a tumour similar to the one I am exhibiting has been shown at any meeting of the Society. An unmarried lady consulted me on April 11; she had enjoyed good health up to last November, when she noticed that her abdomen was rapidly increasing in size. She complained of pain, which she referred to the pelvis and described as of a "bursting" character, causing her great distress and preventing her sleeping. There was no marked interference with the functions of the bladder or rectum, menstruation was regular as

to time, but lasted seven days and was profuse. An elastic tumour as large as an eight months' pregnant uterus could be felt on external palpation, but the result of bimanual examination under ether was unsatisfactory, as nothing definite could be made out, the vagina was so completely blocked by an elastic mass which bulged through the vulva, and nothing could be found to represent the cervix or os uteri. I operated on April 16 with the assistance of Surgeon Tobin; a large abdominal incision having been made, the uterus with the tubes and ovaries was seen to nestle snugly



INTRALIGAMENTOUS FIBROMYOMA.

*u*, uterus; *t, o*, tubes and ovaries.

between the lobes of the tumour, which was found to be firmly fixed below and at each side by its relations to the peritoneum. To remove it seemed formidable, but, guided by general principles, I ligatured the ovarian arteries at the brim of the pelvis, and by making an incision between the ovarian vessels and the uterine ends of the round ligaments and pushing down the peritoneum so that the ureter, if displaced, would be pushed down with it out of the way and escape damage, I split the capsule and enucleated the tumour; the uterine arteries were then secured and the cervix amputated, and the peritoneal flaps brought together by a continuous top-stitched suture

Dr. W. Dargan reports: The tumour weighs 10 lbs. It consists of a large semi-fluctuating mass apparently growing between the folds of the broad ligaments, bilobed and symmetrical on both sides. The uterus lies in front of, and to some extent separable from, the tumour; it is of normal size both in regard to the thickness of its walls and the extent of its cavity; the muscular fibres of the posterior wall seem, however, to shade into the tumour and suggest that the primary origin of the new growth may have been in the uterine wall. Microscopically the structure of the mass is that of a very vascular and oedematous fibromyoma undergoing very advanced mucoid degeneration. When the growth was incised in the recent state a quantity of mucoid matter flowed out, and the trabecular cystic appearance it now exhibits is due to a great extent to the evacuation of these cysts, partially also to large blood spaces.

In regard to the pathology of fibroids of the broad ligament, Roberts ("Gynæcological Pathology," 1901) says: "These tumours have till lately received little notice and possibly represent a class of fibroids distinct from those of the uterus, and at all events not primarily of uterine origin." It is, of course, well known that many fibroids that arise in the uterus may grow out and burrow between the layers of the broad ligament, producing great distortion and displacement of the pelvic contents, but true fibroids of the broad ligament probably arise from the muscular fibres which occur in the broad ligament immediately beneath the peritoneum, and are directly continuous with the musculature of the uterus. Hence they have little connection with the uterus except by apposition or slight adhesion, and generally the uterus is not enlarged or altered in any way, but is merely displaced forwards and upwards, as is, I think, well demonstrated in my case. Bland Sutton agrees that fibroma may develop in the mesometrium, and gives a beautiful illustration of bilateral fibroids of the mesometrium in his "Tumours, Innocent and Malignant," 1901, p. 200, fig. 116.

The specimen I have shown is an interesting and, I think,

typical example of tumours of the mesometrium; it illustrates the difficulty of diagnosis, and shows the advantage of a high incision into the capsule as a means of protecting the ureters from injury.

Dr. HEYWOOD SMITH pointed out that to the naked eye the upper part of the uterine muscular tissue seemed involved in the tumour but not the ovaries. Some light might be thrown on the pathological origin of this very interesting specimen during the discussion.

Dr. J. J. MACAN said that since attention had been drawn to the numerous forms of degeneration which fibroids were liable to undergo, quite apart from cancerous or sarcomatous new growth either affecting the tumour itself or associated with it, fresh instances of such degenerations were constantly being published, and gynæcologists were, he thought, beginning to agree that these fibroid tumours were by no means light and trivial affections, and that when associated with any serious symptoms they ought to be dealt with at once, more especially in the case of such women as had to earn their livelihood or to manage their domestic affairs. In very many instances, as Professor Smith had pointed out at Cheltenham last year, the suspicion cast on the character of a single woman by the deformity caused by the tumour, was in itself ample to justify operation.

Dr. MACNAUGHTON-JONES commented upon the rarity of intraligamentary tumours so completely disassociated from the uterus as in this case. The case afforded another proof of the necessity for taking quite a new view of the nature of these tumours and their dangers. They could no longer be regarded in the light of simple musculo-cellular structures impairing health only from the ordinary results, such as hæmorrhage arising from them, or from the mechanical effects they might produce on the pelvic or other viscera. The degenerations to which they were liable were met with so often (especially mucoid degeneration, which, as shown by some statistics, was startlingly frequent) that they had to be regarded from quite a different point of view. He would like

to know from Dr. Smith exactly how he dealt with the capsule after incising it. He had used the expression enucleation—had he enucleated the tumour from its capsule? He (Dr. Macnaughton-Jones) had not done this himself, but he had seen it done, and, as he had pointed out at a recent meeting of the Society, this method rendered the removal of the tumour much easier. He would also like to know if these large vascular spaces were present with the mucoid degeneration, as such a multiple form of degeneration was very uncommon. These spaces were of the nature of a telangiectatic degeneration, a most interesting specimen of which had been shown at the Society by the Master of the Rotunda Hospital.

Dr. RICHARD SMITH said he had himself shown to the Society two mesonephric tumours similar to the one before them. One about the same size had burrowed deeply into the broad ligaments on both sides. He asked Professor Smith what had been the rate of growth, was there any fever or general irritation, and whether the cervix was drawn up beyond the reach of the finger?

Dr. BEDFORD FENWICK said that by one of those curious coincidences which so frequently happened in real life, he had placed on the table a specimen of a uterus which he had removed from a woman four days ago, and which he had brought to illustrate part of the paper that he was addressing to them later on in the evening. They would see that the lower part of this large fibroid was embedded in the broad ligament on the right side. The upper part of the tumour, extending on the left side right under the ribs, showed a very marked and very extensive degree of mucoid degeneration; in fact, precisely the same condition as that which Professor Smith's very interesting case exhibited, but part of the tumour only was in the broad ligament. It was evidently growing from, and was removed with, the uterus. It was a very interesting specimen as showing how mucoid degeneration occurs, and how a fibroid can maintain its vitality only so long as it is freely supplied with blood. After many

years' work on this subject he was convinced that the reason why some fibroid tumours degenerated and others did not, was that some lost their blood supply and others continued to be more or less freely supplied with blood. That this should be so was only common sense, it was only common pathology. But these two specimens illustrated the fact in a very remarkable and interesting manner. The broad ligament part of the tumour, distinctly a hard fibroid, was of course well supplied with blood, but the other part, which extended as he said upwards almost underneath the ribs, and had free adhesions to the intestine, apparently had no supply of blood except from the uterus itself. In other words it was beyond the range of that free circulation which it required for its growth and nutrition, and that he ventured to believe was the reason why it had degenerated. The tumour which he showed contained a large amount of gelatinous mucoid fluid, it was removed only twelve days ago, and the patient had died the previous day.

Dr. HEYWOOD SMITH said that the principal point to be elucidated was the mucoid degeneration, and whether the tumour was connected with the mucosa of the uterus. The difficulty of course was as to the way the mucoid elements reached the interior of the tumour. He had shown at another meeting a very remarkable degeneration illustrating Dr. Macan's remarks. There was a large sarcomatous cavity and a distinct line of demarcation from a very dense fibrous tumour. Professor Smith would perhaps tell them if the section made through the middle of the uterus showed any connection or trace of the point of origin of the tumour, or of the derivation of the mucoid elements from the lining part of the uterus or from elsewhere.

Professor A. J. SMITH, in reply to the Chairman's question as to what the sections made through the uterus demonstrated, said that such sections had been made. The uterus was normal in thickness and in length, and could be lifted almost completely away from the tumour except where the peritoneum seemed to form a very limited adhesion

between them. It lay with the ovaries and tubes well in front, and having tied the arteries on both sides he had incised the peritoneum and capsule, detached them so as to form anterior and posterior flaps, and enucleated the mass without any difficulty. According to the pathologist's report, there were blood spaces present as well as mucoid degeneration. The patient had been in good health till last November; there was no fever; the vagina was completely blocked and the cervix drawn up beyond the reach of the finger. He quite agreed that mucoid degeneration, whatever its cause, added an element of malignancy to the tumour, and was an indication for operation not present in ordinary cases. There was another peculiar form of degeneration met with in fibroid tumours about which he had hoped to have heard something said that night. Under its influence the tissues became quite yellow in appearance; and Professor Macweeny, who had particularly noticed it, was unable to classify this peculiar form of degeneration under any of the accepted designations. It was not myxomatous or calcareous or malignant, in the sense they used that word, neither sarcoma or cancer, but something between these two latter. He thanked Dr. Macan for reminding him of his remarks at Cheltenham, namely that tumours in governesses, and servants, and barmaids, and in fact, all who had to earn their own living, which caused a swelling of the abdomen, should *per se* be an indication for operation. Dr. Macnaughton-Jones had asked him as to the incision. If they looked at the specimen they would understand that on opening the abdomen he was able to see the uterus, the tubes, and the ovaries lying quite in front of the tumour. He tied the arteries on both sides and simply split through the capsule and peritoneal covering as high as he could as he was afraid of some displacement of the urethra. He then enucleated the tumour, and the ease with which it came out was delightful; the capsule he dealt with afterwards, trimming and stitching the large flaps in the ordinary way. As to the cause of uterine degeneration the generally accepted theory was the want of proper blood supply, and



there was no doubt about its accuracy, especially in his case and that of Dr. Bedford Fenwick.

Professor Smith said, in reply to Dr. Richard Smith, that the patient was in perfect health up to last November. She then noticed that her abdomen was rapidly increasing in size, and this no doubt was the outward manifestation of the onset and rapid development of the mucoid degeneration.

Dr. MACNAUGHTON-JONES said he thought that when they met with complete absence of internal genitalia from any reason it was of importance that such instances should be put on record.

CASE OF ABSENCE OF THE GENITALIA IN A CHILD DISCOVERED THROUGH AN ATTACK OF APPENDICITIS. OPERATION AND RECOVERY. By H. MACNAUGHTON-JONES, M.D., F.R.C.S., I. & E.

I have already recorded two cases of absence of the internal genitalia. These cases I brought before the Obstetrical Society. The one occurred in the instance of a child, aged 3. Here I was consulted for complete closure of the introitus, with the exception of an extremely small aperture which led to the urethra. The vaginal canal was found complete. In this case I resected the fold, closing the orifice, making a new vaginal outlet. The uterus was about the thickness of a quill, and a little over an inch in length, and there was complete absence of the adnexa. The second case occurred in a patient, aged 22, in whom the catamenia had never appeared. Here the vaginal orifice and the canal were normal, but there was no evidence of uterus save a small knob-like substance in the vaginal roof, and under the deepest anæsthesia no adnexa at either side could be detected. The mammary glands were quite rudimentary. I have recently seen two other cases in which the genitalia have been absent. The first was a child, aged  $8\frac{1}{2}$ , that I had the privilege of seeing with Dr. Farmer, of Lewisham, under the following circumstances:—An active, healthy child, she had had no



illness until February 16 last, when she was seized with abdominal pain in the afternoon which lasted for the entire night. On February 17 she was seen by Dr. Farmer, the abdomen being distended and resistant, though not tender to pressure. Her temperature was  $99.5^{\circ}$ , and her pulse 140. On the 18th she had three very offensive motions after a dose of castor oil, and there were periodical colicky pains throughout the day. On the 19th the pain recurred. On the 20th temperature fell to subnormal, the pulse being 112. She was then seen in consultation by a physician, and no definite decision was arrived at as to the exact cause of the symptoms, which were rather obscure. Meantime the bowels were kept fairly relieved, and she took small and increasing doses of belladonna and opium. I saw her on the 26th with Dr. Farmer, and examined her under an anæsthetic. By the vagina, bi-manually, both supra-pubically and through the rectum, no uterus could be detected, nor any evidence of adnexa. This was made quite clear by the most careful recto-vesical examination. Through the rectum, above the vagina (not so well felt through the latter), a soft tumour or mass could be discovered, rather sausage-shaped. I advised abdominal exploration, and on the 28th I opened the abdomen. I found the bowel generally in an injected and congested condition, with some soft peritoneal adhesions here and there. These were more particularly apparent at the left side and in the neighbourhood of the sigmoid, in which was a fæcal mass doubled over the rectum, evidently that which I had felt through the bowel. No uterus or adnexa were discoverable. The appendix was carried down to the bottom of the pelvis, where it was fixed by adhesions. It was about six inches in length. On rupturing the adhesions which attached it some pus escaped. The appendix was removed, and the infected portion of the pelvis having been cleansed with formalin, the abdomen was closed, an iodoform drain being left. An injection was then given by the bowel, and some fæcal matter escaped. Things went on fairly well until the fifth day after operation, when the long

drainage gauze was removed and a shorter one inserted. On this day some fæcal discharge was perceived coming from the drainage opening in the abdominal wound. The opening was carefully cleansed with formalin and kept patent, but was not otherwise disturbed. On the eighth day after operation the bowels were acting satisfactorily with enema, the wound was healing, and there was neither fæcal matter nor discharge. From this time the progress of the case was uninterrupted, with the exception of an attack of cystitis, from which she perfectly recovered, and the child is now well and running about. Mr. Charles Ryall kindly assisted me at the operation.

#### ABSENCE OF THE VAGINA AND INTERNAL GENITALIA.

A patient, aged 32, consulted me for severe pains in the head and periodical pain in the left side. She had complained of her head and some obscure abdominal pains from the age of 18 years. There had never been any catamenial discharge. There was considerable mental depression associated with her symptoms. Sexual instincts appeared to be perfect, and there had been a question of marriage. The mammary glands were fairly developed. The absence of catamenia, and some uncertainty as to the possibility of marriage, had of late distressed her, and her health had considerably deteriorated.

On examination under an anæsthetic, I found one small orifice, which proved to be the urethral. The clitoris and labia were perfect, but there was no introitus. On examination by the rectum, and bimanually, I could find no uterus. I made an incision in the middle line to ascertain if I could light on any vaginal canal, and found that there was none, a musculo-cellular bed existing between the bowel and the bladder. Complete exploration by the opening thus made, as well as by the recto-vesical method, proved that there were no internal genitalia. The patient's position was afterwards thoroughly explained to her, and curiously enough the effect on her mind since she has understood her position has been most salutary. Her headaches were proved to be due to severe eye strain caused by an unrecognised and high

hyperopic astigmatism, which was completely rectified. Since this has been done she has quite lost her headache.

Dr. ROUTH said that there was little doubt that many cases of deficient genitalia were not reported either from feelings of modesty or from consideration for the patients; many others were not detected because, as there was no definite disease, no examination was made; his own experience led him to believe that many women were without children simply because they had no uterus. He could now recall the details of two out of the many cases of the kind that directly and indirectly had come under his care; both were women in good position, in perfect health in other respects, and with large *mammæ* and normal sexual instincts; in the one, the vagina was of normal dimensions; in the other, it would only admit the tip of his finger, but he was able to lengthen it by operation, to the great satisfaction of the patient and her husband. The late Dr. Rogers, who like Spencer Wells had a very small hand, was able to introduce the whole of it into the rectum, and complete the diagnosis in that way. Laparotomy for such a purpose was neither necessary nor justifiable.

Professor SMITH had met with both partial and complete absence of the genitalia; the presence of a rudimentary uterus, however, was not uncommon. He was curious for some explanation of the *fæcal fistula* in Dr. Macnaughton-Jones's case of appendicitis, and could hardly understand how a second gauze drain could have been inserted to replace the first. He seldom, if ever, used a drain now unless he had reason to expect hæmorrhage.

Dr. S. J. AARONS gave a brief account of a case very similar to Dr. Macnaughton-Jones's second one—a woman of 32 without uterus or ovaries. He asked for more information as to the development of the bust, genital hair, and other marks of puberty in girls in whom the genitalia were partially or entirely absent.

Dr. HEYWOOD SMITH concurred with Dr. Routh that many cases were not reported, and that many married women

had nothing in the way of genitalia internal to the vagina; it was a most interesting point that in such the sexual instinct was not necessarily deficient; that in these cases, where one diagnosed that there was a total absence of internal genitalia, it had been shown that such deficiency did not necessarily imply the lack of the usual sexual instinct. Of course one could not speak for certain until verification by *post-mortem* examination had been made; for a rudimentary ovary was often found which might account for the presence of sexual feeling, and it certainly was remarkable that sexual feeling should be fully developed in spite of deformity of the genital organs. Cases had been mentioned in which the orifice that was seen, small as it was, led into the urethra, and in some there was no doubt that coitus had been practised by the urethra; he had himself met with an instance of this.

Dr. MACNAUGHTON-JONES, in reply, pointed out that in one of his cases, while the external genitalia were normal with the exception of a comparative absence of hair, the breasts were quite rudimentary, the gland, in fact, being only represented by a small nipple not larger than that of the male. In the other, the only vestige of genitalia, external or internal, was in the clitoris and labia. Here the mammary glands were fairly developed. In the former case there was a disinclination for male society and an abnormal shyness; in the latter sexual instincts appeared to have been strong. In two cases the only aperture was that to the urethra. In another, while the external genitalia were all perfect the internal were completely absent. A practical point was the necessity for examination, when there was *emansio mensium*, before treating patients for assumed amenorrhœa, resorting to drugs or to sending them to ferruginous spas. In one of his cases the patient had gone, on two or three occasions, to foreign spas, and drunk gallons of chalybeates recommended for her amenorrhœa; he need hardly say that this treatment had no miraculous effects as regards the production of catamenia. He thought it important to bring forward these cases

because there appeared to be some curious idea in the minds of some men that such patients ought not to be examined in order to ascertain whether they had normal genital organs before sending them to spas to undergo a course of treatment. There was something very disconcerting after treating a girl for several years to discover that she had no uterus. As regards Dr. Routh's remarks, he need hardly say it was perfectly easy to diagnose the absence of the internal genitalia without opening the belly. Examination under anæsthesia with the finger in the rectum and the sound in the bladder established it quickly enough. In one of his cases of atresia there was a vagina, but the entrance to it was closed; in the other case there was complete absence of the vagina. There was the very important question as to whether one could be made, and a vagina had been made successfully, that is to say, its rudimentary length had been extended so that intercourse, not possible before operation, was now able to take place. Of course, if one was perfectly sure that there was no vagina at all then there was no object in trying to make one. He had himself made a rudimentary vagina with the intention of producing a good mental effect on the girl and his object had been accomplished, for the patient had perfectly recovered after the operation. It was important, both for surgeon and patient, to ascertain that there was a uterus present before endeavouring to stimulate its function. With regard to Professor Smith's question as to how the fæcal fistula occurred in the first case, he (Dr. Macnaughton-Jones) could not explain it himself, save by suggesting that the bowel had ruptured from some previous compression and the general peritoneal inflammation which preceded the operation, as in other cases of appendicular abscess. With reference to the gauze drainage, he had not returned it in the manner Dr. Smith thought, but had simply inserted a small portion, wishing to keep the abdominal opening patent. Fashion influenced them in many matters, and now we all resorted to the gauze drain, but he was very doubtful in many cases if the old sterilised rubber tube drain was not

preferable. In this instance, with pus deep in the pelvis, he believed, seeing the sequel of the case, that the child would have died had he not inserted a drain.

**FIFTY LAPAROTOMIES.** By BEDFORD FENWICK, M.D., &c., Physician to the Hospital for Women, Soho Square.

In accepting the invitation of your Hon. Secretaries to read a paper at this meeting, I must first express my regret that the time at my disposal has been too short to enable me to prepare as complete a thesis as the importance of the subject I have chosen, and the critical audience I have the honour to address, alike demand. There is often much valuable information to be gained by tabulating and thus contrasting the details of a number of different cases of the same disease; and in previous papers which I have brought before this and other medical Societies I have endeavoured to show that the lessons to be thus learned may be useful both for diagnosis, prognosis, and treatment. Had time allowed, I should have been glad, for the purpose of this paper, to have collated two or three hundred cases of abdominal section; but finding this impossible I restricted myself first of all to the eighty-five cases I have performed in the last sixteen months. From these, I have deducted thirty-five cases of simple straightforward ovarian cysts and uterine fibroids, leaving, therefore, fifty for consideration to-night. I should add that, in this fifty, I have purposely included two cases of hysterectomy, one for malignant disease, and one for degenerate fibroids, because both these cases died, and as they represent the only deaths which have occurred amongst my abdominal sections for nearly three years and a half, I deem it more fair to include them both. These fifty cases, then, I have placed in tabular form in order to obviate the necessity of wearying you with a detailed account, however short, of every case. Briefly, I may say that every one of these cases was a more or less difficult operation, that is to say, not one of them presented a simple

straightforward condition. The fifty cases comprise fourteen of uterine fibroids, twenty-four cases of ovarian growths, nine cases of pyosalpinx, one case of malignant disease of the uterus, one case of extra-uterine foetation, and one of extreme abdominal hernia.

Of the fibroids, one was remarkable because the growths which were large enough to fill the abdominal cavity consisted of two masses occupying each side of the abdomen, connected together by a narrow pedicle and separately connected by similar bands to the uterus; no blood-vessels being found in either of the three pedicles, the growths evidently received whatever vascular nourishment they required through the vessels of the omentum, which covered and adhered closely to their surface. Their blood supply, however, was small, because both tumours were absolutely calcified and almost bony in consistence. To obtain their removal, the abdomen had to be opened to the ensiform cartilage. The series next includes four cases of large, soft, interstitial fibroids, cases in which, I believe, one obtains the best results from the removal of the ovaries, which are almost invariably diseased, and the cutting off, therefore, of a large portion of their blood supply. As a matter of fact, in these four cases within twelve months the uterus had almost contracted to its normal size, whilst the special symptoms had disappeared and the general health was perfectly re-established. In one case, the fibroid was a subperitoneal outgrowth from the posterior wall of the uterus dragging the organ back by its weight, completely filling and moulding itself to the pelvis and so adherent and tightly wedged into its cavity that it was very difficult to raise. In this case, the treatment adopted was by a perpendicular incision opening the capsule of the tumour and thus enabling it to be shelled out. The cavity thus left was allowed to contract, which it did in a few minutes, and was then closed with deep and superficial sutures, the ovaries and tubes, which were quite healthy, and the uterus being left intact. It was very remarkable how rapidly the general health of the patient improved in this

No.	Age	M. or S.	Duration of Illness	Catamenial History
1	42	M $\frac{0}{0}$	5 years. Increasing swelling of abdomen	Aged 16. Reg., normal
2	27	M $\frac{1}{0}$ , aged 18	Vaginal hæmorrhage for 8 weeks	Aged 14. Irreg., profuse
3	36	M $\frac{5}{0}$ , aged 31	4 years. Increasing pain in back and groins, disabling her from work; losing flesh and strength	Aged 14. Reg., profuse
4	37	M $\frac{5}{1}$ , aged 27	Pain in abdomen and back for 2 years, increasing, disabling her from work	Aged 14. Reg., abnormal and pain last 2 years
5	37	M $\frac{2}{1}$ , aged 36	Ill 5 years. Increasing swelling of abdomen pain in back and groins, disabling her from work	Aged 12. Reg., normal lo
6	41	M $\frac{0}{0}$	Ill 6 years. Increasing swelling and pain in abdomen, loss of flesh and strength, constant micturition, increasing constipation	Aged 18. Reg., profuse lat
7	33	S	For 5 years increasing pain in right side. Treated twice for appendicitis; no operation	Aged 14. Reg., profuse, painful
8	42	M $\frac{0}{0}$	Fell down stairs 6 months ago; lump increasing in centre of abdomen ever since. Abdominal operation three years ago	Aged 14. Reg. .. ..
9	36	S	Increasing pain in back and thighs, and general weakness	Aged 15. Reg., profuse, p
10	40	M $\frac{0}{0}$	Increasing constant pain in back for 5 years, loss of flesh, increasing dysuria and dyschezia	Aged 15. Irreg., last 5 years increasingly profuse and longed
11	40	M $\frac{2}{0}$ , aged 26	Last 10 years increasing swelling of abdomen, loss of flesh and strength, living on brandy and milk for last 2 years. Twice told operation was impossible	Aged 14. Irreg., variable
12	24	S	Increasing swelling of abdomen	Aged 14. Irreg., variable
13	50	S	Last 5 years increasing losses, now almost constant; swelling of abdomen last 2 years	Aged 13. Reg., profuse
14	41	M $\frac{1}{3}$ , aged 29	Rheumatic fever 6 years ago. Last 4 months has had increasing coloured discharge	Aged 15. Reg., profuse, p



Condition	Operation	Result
abdomen distended by nodular masses	Incision to ensiform; 2 very large calcified fibroids connected by narrow pedicle; uterus removed	Cured
right dermoid ovary, left	Both ovaries removed .. ..	Cured
ovaries large, cystic, prolapsed, adherent to pelvic	Ovaries removed .. ..	Cured
fallopian tube enormously distended (pus), filling pelvis, adherent to left broad ligament, floor of pelvis, and intestines. Both ovaries cystic firmly adherent to tube	Ovaries and tube dissected out and removed; free oozing from pelvic floor, checked by perchloride	Cured
soft myoma to level of umbilicus. Both ovaries size of eggs, cystic; tubes swollen thickened, all adherent	Both ovaries and tubes removed	Cured
fibroid filling pelvis and a handbreadth above . Both ovaries large, adherent, and tubes very swollen	Both ovaries and tubes removed, and uterus wedged out of pelvis and lifted up	Cured
ovaries cystic, size of cocoanuts, tubes very swollen	Both ovaries removed .. ..	Cured
hernia of recti, with hernia of foetal head	Intestines adherent to peritoneum, and this to skin; muscle dissected out, stitched together; hernia freed and closed	Cured
fibroid in post. wall. Both ovaries large, cystic, fixed	Both ovaries removed .. ..	Cured
fibroid outgrowth from post. of uterus, filling pelvis and pushed into it. Ovaries large but healthy, tubes quite healthy, uterus in front quite healthy	Fibroid dissected out, cavity contracted quickly, stitched	Cured
abdomen enormously distended by nodular masses, which, after removal, weighed 39 lbs. Patient weighed 6 st.	Incision to ensiform, tumour and ovaries removed; bladder greatly stretched and thin, torn through, stitched	Cured
abdomen distended to ensiform. ovaries very large, locular, glue-like contents	Both ovaries removed .. ..	Cured
fibroid up to ensiform in size. Both tubes swollen	Hysterectomy .. ..	Cured
ovaries cystic in cervicis .. ..	Panhysterectomy .. ..	Death. Wound healthy and healed, pelvis healthy, advanced tricuspid and mitral stenosis

No.	Age	M. or S.	Duration of Illness	Catamenial History
15	45	M $\frac{2}{3}$	Last 5 years increasing losses, increasing pain in abdomen and back, disabling her from work; loss of flesh and strength	Aged 13. Irreg., profuse ..
16	38	M $\frac{1}{3}$ , aged 32	6 months has had coloured discharge, last 3 months swelling of abdomen	Aged 12. Reg., profuse ..
17	27	S	Last year has had increasing pain and swelling of abdomen	Aged 13. Reg., profuse loss, severe pain
18	49	M $\frac{2}{3}$ , aged 22	Last 3 years increasing swelling of abdomen	Aged 13. Reg., profuse, absent for 13 months
19	32	M $\frac{1}{3}$ , aged 18	Last 5 years increasing abdominal pain and menstrual losses; disabled now from work 14 days each month	Aged 11. Reg., profuse, pain severe
20	38	M $\frac{2}{3}$ , aged 21	Last 10 days severe and increasing cramping pain in abdomen and up the left side	Aged 16. Reg., normal ..
21	45	M $\frac{3}{4}$ , aged 26	Last 2 years. Swelling of abdomen	Aged 14. Reg., scanty loss, little pain
22	38	M $\frac{1}{3}$ , aged 19	Last 6 months. Continuous pain in right hip and down thigh, loss of flesh and strength	Aged 13. Reg., scanty loss, severe pain
23	60	S	For last year has had increasing swelling of abdomen and loss of flesh	Aged 14. Reg., ceased at 48..
24	32	M $\frac{1}{3}$ , aged 30	Last 18 months. Constant, severe pain in both ovarian regions	Aged 17. Reg., scanty, severe pain
25	45	M $\frac{2}{3}$ , aged 41	Last 12 months. Increasing pain in back and abdomen	Aged 12. Reg., normal, painful
26	42	M $\frac{1}{3}$ , aged 27	Last 4 years. Throbbing pains in right iliac region; loss of flesh and strength 2 years	Aged 15. Reg., pain before flow
27	40	M $\frac{1}{3}$ , aged 27	Last 3 months. Pain in back and left side	Aged 15. Reg., slight pain ..
28	33	M $\frac{2}{3}$ , aged 20	Last 2 years. Increasing pain before, during, and after period; loss of flesh and strength	Aged 12. Reg., profuse, severe pain
29	24	M $\frac{1}{3}$ , aged 21	Since labour 3 years ago has had increasing pain and losses at periods; disabled from work	Aged 13. Reg., profuse, painful
30	31	M $\frac{2}{3}$ , aged 29	Last 3 months. Increasing pains in abdomen	Aged 15. Reg., normal..
31	39	M $\frac{2}{3}$ ,	Increasing swelling of abdomen and increasing losses for 2 years	Aged 11. Reg., profuse, painful

Condition	Operation	Result
Both tubes greatly distended, in rolls like German sausages, firmly adherent to uterus, intestines, and floor of pelvis	Dissected out and removed ..	Cured
Both ovaries solid, carcinomatous growths, firmly adherent to floor of pelvis; omentum infiltrated	Ovaries peeled out and removed	Relieved
Left tube swollen, full of pus; left ovary size of orange, blood and pus cysts; right ovary and tube healthy	Left ovary and tube removed ..	Cured
Uterine fibroid filling pelvis; ovaries cystic; tubes very swollen	Hysterectomy .. ..	Cured
Ovaries cystic, size of cocoanuts, (blood), adherent to pelvis and intestines, tubes very swollen and thickened	Both ovaries and tubes removed	Cured
Large twisted, suppurating left ovarian cyst; right ovary large, cystic, adherent	Both ovaries and tubes removed	Cured
Multilocular ovary, reaching to ensiform cartilage	Ovariectomy .. ..	Cured
Right hydrosalpinx, left pyosalpinx, left ovary cystic, size of a goose egg, and adherent to tube	Both tubes and ovaries removed	Cured
Carcinoma of both ovaries; omentum generally infiltrated by new growth	Exploratory incision .. ..	Unrelieved
Both ovaries large, prolapsed, and bound down by adhesions	Adhesions broken down and ovaries freed	Cured
Both ovaries cystic (blood), tubes swollen, all adherent to pelvic floor	Both ovaries and tubes removed	Cured
Uterine fibroid, extending to ensiform cartilage	Hysterectomy .. ..	Cured
Twisted right ovarian cyst; 2 pints of treacly fluid	Ovariectomy .. ..	Cured
Double ovarian cysts, size of cocoanuts, adherent; tubes greatly thickened	Both ovaries and tubes removed	Cured
Both ovaries cystic and fixed by dense adhesions to pelvis	Both ovaries removed .. ..	Cured
Kidney-sized and shaped ovaries, adherent to pelvis; spindle-shaped sarcoma	Both ovaries removed .. ..	Cured
Uterine fibroid, size and shape of football	Hysterectomy .. ..	Cured

No.	Age	M. or S.	Duration of Illness	Catamenial History
32	36	M $\frac{2}{5}$ , aged 34	Last 9 months. Increasing swelling of abdomen	Aged 15. Reg., normal ..
33	51	M $\frac{0}{0}$	Last 2 years. Increasing swelling of abdomen, and dysuria	Aged 18. Irreg., little loss, no pain
34	28	M $\frac{0}{0}$	Last 8 years. Continuous and lately increasing pains in left side of abdomen	Aged 16. Reg., slight loss ..
35	58	S	Increasing swelling of abdomen for last 5 months	Aged 16. Reg., ceased at 54 ..
36	53	S	Swelling of abdomen and loss of flesh and strength for last 6 months	Aged 14. Reg., ceased at 50 ..
37	22	M $\frac{1}{4}$ , aged 21	Since second abortion, 6 months ago, has had constant, increasing, dragging pain in left ovarian region; disabling her now from any work; losing flesh and strength	Aged 17. Reg., normal till last year, since then scanty and very painful
38	30	M $\frac{1}{7}$ , aged 20	Two years ago had extrauterine foetation removed; 3 months amenorrhœa now; sudden, severe abdominal pain and collapse 16 days ago; second attack in out-patients' room, requiring immediate admission and operation, blanched, cold	Aged 18. Reg., normal, slight loss
39	45	S	Last 18 months. Increasing pain and swelling of abdomen; loss of flesh and strength	Aged 15. Reg., little loss ..
40	47	M $\frac{1}{4}$ , aged 38	Swelling of abdomen 6 months; sudden abdominal pain 6 weeks ago, since a fall, and increasing dysuria; retention 36 hours before admission	Aged 15. Reg., much loss and pain
41	31	M $\frac{0}{0}$	Constant and increasing pain in left side of abdomen for last 2 years, disabling her now from work; old strumous ear disease	Aged 15. Reg., much loss and pain
42	28	M $\frac{2}{5}$ , aged 24	Last 4 years. Increasing pains in abdomen, disabling her from work; loss of flesh and strength	Aged 13. Reg., little loss, pain
43	22	M $\frac{2}{5}$ , aged 21	Since labour (18 months) increasing pain in abdomen and losses at periods; disabled from work	Aged 14. Reg., profuse, painful
44	31	M $\frac{1}{5}$ , aged 18	Pain in abdomen increasing for 2 months, similar attacks for 4 years past	Aged 14. Reg., normal ..

Condition	Operation	Result
Papillomatous cyst filling pelvis and abdomen, apparently growing from right broad ligament	Dissected out and removed ..	Cured
Uterine fibroid, multinodular, nearly to level of umbilicus; both ovaries cystic and tubes greatly thickened	Both ovaries removed .. ..	Cured
Both ovaries cystic; both tubes swollen and containing pus; dense adhesions	Both tubes and ovaries removed	Cured
Semi-solid, multilocular cyst of left ovary, size of football	Left ovary removed .. ..	Cured
Malignant left ovary, extension into intestines and omentum	Exploratory incision .. ..	Unrelieved
Both tubes size of Tangerine orange, serous fluid; ovaries cystic; all matted together on floor of pelvis	Both tubes and ovaries peeled out and removed	Cured
Abdominal cavity contained much blood and clot; left extra-uterine foetation; numerous old adhesions on right side of uterus; no sign of tube or ovary	Mass removed; tube tied off ..	Cured
Solid ovarian tumour (malignant) removed; intestines and omentum involved	Both ovaries removed .. ..	Relieved
Left ovarian cyst twisted; pedicle firmly adherent to pelvis; right tube and ovary enlarged; small fibroid in uterus	Both tubes and ovaries removed	Cured
Left tube size of bantam's egg (pus), right tube smaller; both ovaries cystic; all matted together in pelvis	Both ovaries and tubes removed	Cured
Tubes thickened, like fingers; both ovaries cystic, size of duck's eggs; all adherent densely	Both tubes and ovaries removed	Cured
Cyst (blood) of left ovary size of orange; tube thickened greatly, adhesions; right tube and ovary fairly healthy	Left ovary and tube removed..	Cured
Left ovary pedicle twisted, converted into an abscess cavity; right ovary cystic	Both ovaries and tubes removed	Cured

No.	Age	M. or S.	Duration of Illness	Catamenial History
45	30	M ♀	Pain and swelling of abdomen increasing for 5 months, loss of flesh and strength; disabled from work	Aged 13. Reg., profuse loss, severe pain
46	39	M ♀	Last 2 years has had pains in abdomen, increasing and disabling her from work	Aged 14. Reg., scanty..
47	40	S	Last 12 months has had frequent and increasing floodings	Aged 14. Reg., profuse
48	30	M ♀, aged 21	Right ovary removed in April, 1899. Previous symptoms returning for last year swelling of abdomen and frequent and profuse losses	Aged 14. Reg., profuse losses..
49	45	M ♀, aged 35	Increasing swelling of abdomen for last 5 years. Increasing pain last 6 months, much dysuria and dyschezia	Aged 14. Reg., profuse, increasing
50	61	S	Last 15 years abdominal swelling, increasing last 2 years; last 6 months increasing and very severe pain	Aged 18. Reg., profuse, ceased at 51

and other cases where pressure on the pelvic organs had caused functional disturbances, depreciated nutrition, and marked loss of flesh and strength. The remaining eight cases were removed by the ordinary intraperitoneal method. The last on the list is a specimen which I show this evening, and which is an interesting example of cystic degeneration of a fibroid growth. At the upper part of the tumour where the degeneration approached nearest to the surface the intestines were adherent to a considerable extent and were peeled off with some difficulty. The patient did very well for eight days, when the stitches were removed. On the tenth day, she had some diarrhoea and violent vomiting. The abdominal walls were extremely fat; the incision had extended half-way from the umbilicus to the ensiform cartilage, and at the upper part the wound tore open with the violent straining, and the intestines protruded. She became collapsed, and although the wound was re-sutured within an

Condition	Operation	Result
Large clusters of cysts on both sides, filling pelvis, adherent to floor of pelvis, back of uterus and left broad ligament; tubes greatly thickened and swollen	Cysts peeled off and removed with both tubes	Cured
Left ovary cystic, adherent to large broad ligament cyst	Left ovary and tube and broad ligament cyst removed	Cured
Uterine fibroid up to umbilicus; both tubes and ovaries swollen and cystic	Hysterectomy .. ..	Cured
Left tube very large (sausage-shaped), adherent to cystic ovary, floor of pelvis	Left tube and ovary removed..	Cured
Uterine fibroid above umbilicus, wedged and moulded into pelvis, and outgrowth into left broad ligament; ovaries cystic	Hysterectomy .. ..	Cured
Double uterine fibroid, upper part degenerating, lower solid; intestines freely adherent to degenerated portions	Hysterectomy .. ..	Death. Collapse on 10th day. Wound in pelvis perfectly healthy; advanced fatty degeneration of heart

hour, the heart failed, and she died just twelve hours later. At the *post mortem*, which was performed this afternoon, it was found that whilst the uterine stump was perfectly healthy and well healed, the heart walls were markedly fatty and that death had resulted from heart failure. I show the heart now, as it is a remarkably good example of fatty infiltration and fatty degeneration of the muscular walls. In contrast with this I would note the point of interest of the other fatal case on my series. She was a woman with malignant disease of the cervix and body of the uterus, and had, moreover, advanced mitral and tricuspid disease. Panhysterectomy was performed, and the patient did well until the sixth day, when she had an attack of syncope, from which she rallied badly, and early the following morning died suddenly. In this case also the abdominal and pelvic wounds were found well healed and healthy, but the disease of the heart's valves were an extreme and typical example of the disease. It is one of

the curious coincidences with which one meets so often that the two deaths which have occurred in my abdominal work during 1901 and 1902 should both have taken place in the first week of May, and should both have been caused by heart failure, consequent, doubtless, indirectly upon the operation, but at the same time independent of its direct results. I may be forgiven for mentioning that, fifteen years ago, I called attention to the frequency with which fatty degeneration of the heart is caused by the presence of abdominal tumours, a fact which seems now to be generally accepted.

In nearly every case of uterine myoma I have noted the co-existence of more or less gross disease of the ovaries and tubes. An American observer—Mrs. Dixon Jones—who has done excellent work in our department of practice, has recently noted the same coincidence, which I need scarcely add is one of much practical and clinical importance. I am, however, regretfully compelled to dissent from her view that the disease of the appendages is the cause of the uterine growth; because everything seems to me to point to the conclusion that it is the consequence of the latter. Permit me to refer for a moment to the question to which a distinguished Fellow of our Society has devoted much time and thought, and upon which he recently contributed a valuable paper and microscopical drawings to our Transactions, showing the changes which occur in the walls of the vessels of a myomatous uterus. Just twenty-five years ago, I observed the same appearances and discussed them with the late Professor Schroeder, with whom I was then working. I suggested that the thickening in the muscle walls of the arteries was a direct *consequence*, and not, as Mr. Stanmore Bishop now suggests, a cause of the fibroid change in the uterus; that in fact the change is strictly analogous to that which takes place in hypertrophy of the heart's muscle in cases of valvular stenosis, or in the muscles of any other part of the body when they are called upon to overcome a greater amount of resistance than usual. The increased density of a fibroid uterus, of course, increases the difficulty of the cir-



circulation through its tissue, and therefore demands an increased *vis a tergo* to secure that circulation. In other words, it appeared to me that the muscular coat of the uterine arteries became thickened and strengthened in order to meet the stress and strain thrown upon the vessels. Professor Schroeder quite adopted my explanation, and it appeared so natural that the fact quite passed out of my mind until Mr. Bishop's valuable paper recalled it. In like manner, with regard to the coincidence of ovarian and tubal disease with fibroid uteri, I believe that Mrs. Dixon Jones will find, if she is good enough to investigate the matter, that the ovarian artery becomes also thickened and hypertrophied in these cases, in consequence of the circulatory obstruction. Then we have produced at once that congestion and vascular stasis which are recognised as essential to the inflammatory state. Let this continue and increase, as it must do, for week after week, month after month, and perhaps year after year, and what wonder can be felt that finally, when an operation becomes necessary, the uterine appendages are found to be diseased? As a clinical fact in support of this theory, I have often observed that the degree of ovarian disease chiefly depends upon the degree to which the contiguous portion of the uterus is affected by the fibroid degeneration. An excellent illustration of this was seen in the case to which I have already referred—in which a subperitoneal fibroid was removed from the posterior wall, the body of the uterus being quite healthy and the ovaries and tubes perfectly healthy.

Finally, it appears to me that too little attention has hitherto been given to the important point of degeneration of the fibroid as an indication for immediate operation. With regard to the difficulty of diagnosing the occurrence of this change, I have always adopted a simple rule. When a fibroid mass, which has hitherto caused no pain or even discomfort, commences to be painful, I believe that in at least nine cases out of ten that pain denotes inflammatory change, and very often the formation of adhesions to the intestines or other contiguous tissues. I shall probably be

corroborated by other observers in the assertion that inflammatory changes rarely, perhaps never, occur on the surface of a fibroid unless some degenerative change is taking place in its deeper structure. So, as a practical point of the first importance, I would submit that the onset of pain in the vicinity of a previously painless fibroid is a powerful indication for immediate operation. Take the case of the specimen I have just shown. For fifteen years she has had this tumour recognised; but it was only within the last six months that she had had pain, and this had only become severe within the last two months. The near approach of the degenerative changes to the surface of the mass, the inflammatory changes on its surface, and the consequent intestinal adhesions are one and all evidences of much value when regarded from the standpoint both of prognosis and treatment.

There are many interesting points in connection with this series of cases to which I should have been glad to ask your attention. I fear, however, that I have already occupied too much time, and I would therefore briefly note the following points of interest:—

The series includes twenty-four cases of ovarian growths. Of these three were large sarcomata, which were removed, and two other cases of malignant disease, in which the omentum and intestines were found to be so far involved that nothing was attempted. The average age of the cases was  $56\frac{1}{2}$ .

In five cases the pedicle had been twisted, with the customary clinical and pathological features. The contents of two of these growths were pus, and in the remaining three more or less altered blood. In every case the growth was very firmly embedded in inflammatory effusion. Why should the fluid of some of these twisted cysts become converted into pus and that of others remain sanguineous? Here, again, it is a fact of much clinical importance that the cases which have suffered the most pain are those in which the operation is usually complicated by more or less dense inflammatory adhesions.

The series contains nine cases of pyosalpinx, of which six affected both sides, and three were only on the left side. In every case the tube was greatly swollen, like a German sausage, and more or less densely adherent to the floor of the pelvis, and the uterus and surrounding parts. The clinical features of importance in every case were the great and increasing pain, the profuse and generally increasing menstrual loss, and the marked loss of flesh and strength which is so characteristic of these cases. In every case the patient's condition three months after operation was remarkably changed for the better. One had gained 2 st. in weight; another was not recognised by a friend, who had lived with her during her illness, when she returned home from the sea-side fat and ruddy instead of wasted and cachectic-looking, as she was before the operation. I am more and more convinced, the more I see of these cases, that it is doing the patient a grievous wrong to advise delay in the removal of so pressing and constant source of danger to her life, and so great and increasing a detriment to her general health and well-being. I have never seen an explanation for the greater frequency with which the left tube is affected; but this is a clinical fact which I have frequently observed.

The case of extra-uterine foetation was chiefly interesting because of the extreme loss of blood and the collapsed condition of the patient. It proves that the only chance of safety of such cases is instant operation. Here I went rapidly into the abdominal cavity, grasped the tube firmly whilst the blood was ladled out of the cavity, and then tied off the ovarian vessels before separating the foetus.

The abdominal hernia occurred in a lady from whom I had removed an ovarian growth some three years previously. The wound healed strongly and well, but she was very stout. She slipped over a puppy at the top of a flight of stairs and was precipitated to the bottom, making violent efforts to save herself. She then experienced great abdominal pain, and it was found that the recti muscles were widely separated and that there was a protrusion the size of a cocoanut between

them; she temporised with this for some four months, but the pain became so extreme that she came to England to see me, and I found that there was a large hernial sac between the recti, to which intestines and omentum were adherent. I opened the sac, released the intestine, dissected the muscles back, removed some thickened peritoneum and omentum, and closed the wound in three layers. She recovered well, and with a perfectly strong scar.

Mr. MANSELL MOULLIN congratulated his colleague, Dr. Fenwick on the great success of his operative work, and thanked him for the many interesting and valuable points which he had brought forward for their consideration. He did so with the more pleasure as he had witnessed a great number of the operations referred to in the paper and in many instances had been able to give some assistance. He was sure that Dr. Fenwick would not object to him mentioning that some, if not all, of those operations were included in a larger list which he wished to bring before their notice as affording a very fair indication of the position of gynæcological surgery at the present time. This list was an early proof of the medical report of the Hospital for Women for 1901, which had not yet been issued; it included no less than 173 abdominal operations performed during twelve months, practically every such operation that there was, and the mortality was only equivalent to about 5 per cent. Under the first heading in the list they would find 57 ovariectomies among which were instances of all those various conditions for which the operation was usually performed; there was not one death in these 57 cases, but this was what one would now expect. The oöphorectomies, removals of the uterine appendages for disease, were not classed with ovariectomies as they were known to be of much greater severity, but among these, 22 in number, there was only one death. The operation of oöphorectomy was also performed successfully on two occasions during the last twelve months for myoma of the uterus. He wished, however, to draw their attention more particularly to the 21 cases of abdominal hysterectomy by the

intraperitoneal method and five cases of myomectomy; in these 26 operations there was no death. That, he thought, was an eminently satisfactory result, and it fully entitled him to say that nothing enabled them better to carry out in practice the sentiments expressed by Drs. Macnaughton-Jones and Macan than by knowing that they had a remedy that they could use without any fear of the results. The technical difficulties of hysterectomy, he might say, had been practically overcome and the position of gynæcological surgery at the present time was now very different from a few years ago, when, on examining a fibroid tumour with a view to operation, the point that crossed one's mind in reference to the condition of the lower portion of the uterus was whether the length of the cervix was sufficient to enable one to put a wire round it. Now this point was never taken into consideration at all, and unless an operation was likely to cause anxiety owing to some complication, it was considered of hardly any interest at all.

Eight deaths from various causes were included in the list of abdominal operations. Five were cases of cancer, two followed colotomy, and in the whole series of gynæcological operations there was only one death (after oöphorectomy for adnexal disease). As far as gynæcological surgery was concerned, they seemed to have come to an almost ideal point of perfection, and he only hoped that the next series of operations brought before them by Dr. Fenwick would be equally satisfactory.

Professor A. J. SMITH joined in congratulating Dr. Fenwick on the extremely successful series of laparotomies which he had brought before them. Among the many interesting points suggested by the paper, there were one or two of particular interest to himself. The first was the performance of oöphorectomy for fibroid tumours. He had had comparatively very good results from this operation, but had lately given it up altogether because he saw no use in leaving the uterus behind when it could be removed with such ease and with such success, and he therefore preferred in

cases of fibroid tumours to perform a retroperitoneal hysterectomy. The mortality of laparotomy was now hardly worth considering, as it was no longer a remarkable feat to do 100 or 200 operations with success. Every now and then accidents were bound to occur, but at his hospital in Dublin he had done up to last year 114 hysterectomies without a death, and he had not had any fatality from that operation since; but he did not wish them to suppose that he put this forward as a remarkable fact, for he considered it just what it ought to be. What he was trying to aim at, more than anything else, was to find out the best after-treatment for the cure of his patients. Each case must be considered on its own merits. Another point was were they ever to alter the treatment to facilitate a rapid recovery. Were they to prepare the intestinal tract of a patient who had run down through hæmorrhage by a fortnight's special treatment before operation so as to ensure a rapid recovery? Another point of interest was how could they best relieve the pain which these patients suffered from sometimes after even trivial operations?

Dr. RICHARD T. SMITH said that some fifteen years or more ago he had the pleasure of hearing a paper read in which his old tutor, Mr. Erichsen, said they had reached the climax of surgical success. Yet they did not perform hysterectomies then, they did not open the skull in those days, and perhaps the future might prove that they were mistaken in supposing that the acme of perfection had been attained even in regard to hysterectomies. He joined in offering his congratulations to Dr. Fenwick because he had had the pleasure of his valuable help in many cases for many years. He might mention that in cases where he feared that collapse might supervene from failure of the heart, he had for some years back made a practice of giving hypodermic injections of strychnine, one a day for perhaps a fortnight beforehand, with, he thought, great benefit in some cases; it was a very valuable adjunct. Another thing which had enabled them to do some of these great opera-

tions for very large tumours, was that now they had the advantage of saline solutions, and knowing what can be done by their means they were led to venture on operations which without such assistance they could not have attempted. He was still a firm believer in the efficacy of removing ovaries for fibroid tumours, and for this reason, that one had to have regard to the patient's condition and welfare. He remembered distinctly some six years ago a person coming to him with a fibroid reaching to the umbilicus; she was very anxious to have it removed, and told him her history and position. Her father and sisters were dependent on her for their sustenance. She knew she must have something done, and she wished him to do that which was the least serious. Though it was a big tumour he promised that if he could remove the ovaries he would do so. It was a fibroid tumour and exceedingly hard, and she did well and was greatly relieved. He had known many hard fibroids completely disappear after the removal of the ovaries, though he confessed that the operation was no good at all for soft myomata which were muscular. In the case to which he referred he had the pleasure of seeing the patient recover her health absolutely, and she was doing very vigorous work at the present day. He felt fairly confident that at that period, some seven or eight years ago, any operation for the removal of that tumour would have been fatal. They must not be led away by fashion, and he was convinced that it was not by any means their duty to remove every fibroid tumour of the uterus.

Dr. MACNAUGHTON-JONES said that everyone must congratulate Dr. Bedford Fenwick, Mr. Mansell Moullin, and Professor Smith, not only on their skill, but on the wonderful run of luck that they had had with regard to the operation of hysterectomy. A survey of the views of gynæcologists, not merely in this country but in America and abroad, showed that men who had the very largest experience by no means ignored or despised the danger which still attended the operation even of simple laparotomy. Every time they



opened an abdomen they must accept a certain degree of risk. They had extreme statements to contend with; on one side they found marvellous statistics without a single death, and assertions which would lead them to believe that hysterectomy had come to be such a simple proceeding that it could be performed with almost absolute impunity; on the other, they found men trying to induce not only the profession but the public to believe that hysterectomy was being performed recklessly and needlessly. He believed that every woman who had a fibroid tumour demanding removal should have that tumour removed. He believed that the risk to life attendant on these growths was far greater than hitherto admitted. Those who, like Dr. Fenwick, brought forward statistics showing a wonderful immunity from mishap, confessed that absolutely unavoidable accidents were met with, accidents which were not to be foreseen, disasters which overtook the most carefully conducted and the most successfully completed operations. We could not foretell cardiac failure. We could not foretell shock. Certain bowel complications would occasionally arise, do what one would, and were occasionally fatal whatever treatment you might devise. He thought the prudent attitude to assume with regard to hysterectomy was, that while they fearlessly operated on every case that ought to be operated on, they should not by any means ignore or depreciate the risk which that operation entailed even in a case in which there appeared to be every likelihood of the most favourable issue. Speaking broadly that was his view. Not merely in hospital work alone but also in private practice he had himself met with rebuffs, and exactly in those cases in which he least expected them, and his experience was not singular. He recently met a very successful operator who had had a run of upwards of 100 successful laparotomies, who mentioned that within the three weeks previously he had had three fatal cases in succession.

From a paper on such a subject they wanted to learn something more than that a certain number of cases had



recovered, or that certain peculiarities had been encountered, and he would ask Dr. Fenwick to tell them what in his experience was the best anæsthetic, and under what anæsthetic he preferred to operate in abdominal patients—chloroform, ether, or a mixture of both, or one of gas and ether? Occasionally they had to give a voice in this matter. Previously he had nearly always preferred gas and ether, but he had now been giving chloroform only for nearly six months. There was considerable difference of opinion between different operators as to the management of the bowel. To him it was one of the most critical and crucial questions. When did Dr. Fenwick administer an aperient, and what aperient did he use? Then again he would like to ask him how he met early sickness and vomiting. Dr. Fenwick had referred to inflammatory conditions occurring in myomata. Fibromitis sometimes occurred with characteristic symptoms of high temperature, pain in the abdomen, especially in the region of the tumour, followed by swelling, and he would like to ask Dr. Fenwick if he had noticed such cases. He had himself met with a few cases with these characteristic symptoms, so much so that in one instance the patient, who was attended for a miscarriage with peritonitis, had really a myomatous tumour attacked with fibromitis.

There was a point which had been brought forward by Dr. Fenwick which was also extremely important in regard to their improved knowledge of ovarian tumours and cysts, and that was the comparative frequency with which they met with malignant disease of the ovary. This frequency was an additional reason for operating and not temporising in cases of tumour of the ovary. Pain in connection with adhesions was a point which was very valuable in diagnosis. In all cases where they found persistent pain which could not be relieved they generally found extensive adhesion of the ovary. On the other hand, they had often to operate for ovarian pain, and on examination of the ovaries they found little evidence of disease. So far as he knew Dr. Fenwick was the first gynæcologist to draw attention to the cardiac

complications connected with myomata. As far back as fifteen years ago, in a paper read before their Society, Dr. Fenwick drew attention to cardiac hypertrophy in myomata. In a case which he himself had operated on, it was cardiac failure which caused death, for there was no symptom of peritonitis and none arising out of the operation itself.

Dr. HEYWOOD SMITH regretted that Dr. Bedford Fenwick did not use the word "coeliotomy." This Society ought to assist in trying to do away with the misleading word "laparotomy." He thought Dr. Fenwick was to be congratulated on doing what he thought Hospital physicians and surgeons should do much more, *i.e.*, utilise hospital work for the good of the whole profession, and in that way the scientific societies and the hospitals would work into each other's hands reciprocally. He remembered Dr. Fenwick's paper, which, if his memory served him aright, dealt with the condition of the heart in connection with abdominal tumours generally, not in connection with fibromyomata alone. With regard to the management of the bowel after operation, difficulties were, he thought, more likely to arise in consequence of its mobility; women were very careless about their bowels, and hard masses of fæces filling the rectum would be certain to keep up irritation. He agreed with Dr. Richard Smith with regard to the removal of the ovaries only in some cases of fibroid tumour. It was no good being led by fashion in this matter and removing a fibroid because it was a fibroid. They must take into consideration the patient's own wish, and he was quite sure that sometimes after the ovaries had been removed these fibroid tumours disappeared. He would like to ask Dr. Fenwick whether the ventral hernia occurred at the time before stitches were used in three layers in an abdominal wound. The experience of most of them was that the wound united by the three-layered suture did not give way, even with a jerk, though the extreme size of the wound would of course predispose that way.

Dr. BEDFORD FENWICK, in his reply, thanked the Society

very warmly for the kind way in which they had received his paper. He wished he had been able to prepare one more fitted for their consideration, but he could say with absolute truthfulness that without the great technical skill and assistance of his colleagues, Mr. Moullin and Dr. Richard Smith, he should not have been able to give them the paper as it was. He thought the statistics given by Mr. Mansell Moullin were very valuable, and especially to a Society such as theirs, because they showed what special work could really accomplish. This was, after all, an age of specialism; they had learnt that a man cannot possibly know everything, and that if he wants to do any one thing well he had far better do that alone and nothing else. To avoid making any invidious comparisons, he would not bring forward the recent statistics of a certain great general hospital, but he supposed they were all aware that the figures of other hospitals did not compare very favourably with those which Mr. Moullin had just read. He could not agree with Professor Smith's remarks on the removal of the ovaries for fibroids. He believed that there were cases, and when one had worked for twenty years or so in the same field of observation one began to know them by instinct, in which the removal of the ovaries would cause a reduction of the fibroid tumour. He could not take any credit to himself for extra prescience, because in every case at the hospital one had the advantage of the opinion of one or more skilled colleagues. He thought that in every case in which they had removed the ovaries for fibroids within the last four or five years the tumours had practically disappeared. The four he had related were picked out as the most difficult and interesting ones which had occurred within twelve months. The tumours extended nearly up to the umbilicus, in one case had gone beyond the umbilicus, and yet after the ovaries were removed the tumours completely disappeared, and the uterus became normal in size. Quite probably a fifth case might not have been so successful. That of course one could not tell. He quite agreed with Professor Smith as to the necessity of a great many

hysterectomies before drawing up the statistics, as to the results that might be obtained by the operation. Personally, he would not like to regard the operation as a plaything, and he concurred with Dr. Macnaughton-Jones on this point. As regards the anæsthetic, he did not know why, but at Soho they always used gas and ether. A great many patients did not bear chloroform well, and he himself had a prejudice against its use, since it was a heart depressant. In cases of long standing and in cases where, if there was not fatty infiltration, there was a certain amount of fatty deposit on the walls of the heart, they could not want to use an anæsthetic which would further depress the heart's action. There was a practical point he had noticed for some time past, and it was this, that in patients who had taken ether, the first vomit not only smelt extremely strong, but evidently contained a large quantity of the drug. Moreover, within the last few months a paper had been published in Berlin showing that ether was found in the stomachs of monkeys killed after the administration to them of ether; whether it had been drunk by the animal or not was of no consequence. Numerous ecchymoses were found upon the stomach wall, and in one or two cases distinct ulceration after ether anæsthesia. In a great many cases, people vomited violently after such anæsthesia, and sometimes brought up blood, thus showing that there was some inflammation of the surface of the stomach. Taking these facts into consideration, for some little time past, both in private and in hospital practice, he had been giving his patients a glass of water three or four minutes before placing them on the table; and another as soon as they recovered consciousness. Those patients brought up a considerable amount of frothy water but did not seem to be so sick as patients generally were who had had ether anæsthesia without the water. The reason for his giving the glass of water was that water absorbed ether pretty freely, and his argument was that if the ether could be to a considerable extent absorbed in the water, the after irritation of the anæsthesia was bound to be considerably less.

and the stomach would be relieved from an amount of irritability which as they all knew generally caused a considerable amount of trouble. The lessened sickness was confirmed by his colleagues and by the nurses. But a large amount of the sickness after ether anæsthesia was due to the regurgitation of bile, and he therefore almost invariably directed the patient to have 5 grains of calomel the night before the operation as well as the ordinary purge in the morning; that afforded the gall bladder some rest and prevented the regurgitation of bile. If the bilious sickness occurred after the anæsthetic he did not think anything did so much good as a teaspoonful of bicarbonate of soda in half a tumblerful of warm water, the effect of which was not only to dissolve up the mucus which created nausea and sickness, but also to lessen the amount of bile. If, however, sickness did continue on the second day, nothing was so valuable as the white of egg. This helped to cover the surface of the stomach with a mild sedative, and so, more than opium or bismuth, relieved its irritability. In combination with this he used a large mustard leaf at the epigastrium so as to relieve the amount of congestion that must be present. These two measures he had never found fail in the last five or six years in stopping the sickness within thirty-six or forty-eight hours. Next, as regards the bowels, he always gave a purgative at once, if, on the second day, there was any rise in the pulse; he gave 5 grains of calomel, followed four hours later by sulphate of soda, or, if desirable, substituted 1 grain of calomel every hour till it acted. If the pulse did not rise above 90 he did not give anything on the second day. The patient was fed on milk and water. As to closing the abdomen, some of his colleagues used the three-layer suture, but he did not see any advantage in stitching the peritoneum separately. He always used a through and through suture, and stitched the aponeurosis separately with catgut.

**BRITISH GYNÆCOLOGICAL SOCIETY.**

THURSDAY, JUNE 12, 1902.

DR. HEYWOOD SMITH, A VICE-PRESIDENT, IN THE CHAIR.

**SPECIMENS.**

THE CHAIRMAN said that the President, Dr. J. HALLIDAY CROOM, who was unfortunately unable to be present, had sent two specimens for the inspection and consideration of the Fellows:—

- (1) UTERUS REMOVED BY VAGINAL HYSTERECTOMY FOR DISEASE SUPPOSED TO BE MALIGNANT, BUT PROVING TO BE A FUNGATING FIBROID.
- (2) UTERUS WITH PLACENTA AND LARGE FIBROID, REMOVED AFTER CÆSAREAN SECTION.

The notes on these, read for the President by Dr. J. J. Macan, were as follows:—

The first specimen is a uterus removed by vaginal hysterectomy from a woman, aged 68. There is nothing to record about the operation itself nor about the patient's recovery, which was complete; but what I have to point out is that this patient was sent to me diagnosed by several medical men as suffering from intrauterine cancer. She had profuse hæmorrhage, so much so that she was absolutely blanched; she had a foetid leucorrhœa and was rapidly losing flesh. A small portion of the uterine tissue removed and examined for me by a microscopist was pronounced malignant, and I therefore decided to operate. About the propriety of performing the operation I have nothing to say, as I believe that it was the best thing to be done for her, but

what I want specially to point out is that now, when the uterus has been removed and examination made, the disease proves to be, not cancerous, but simply a fungating fibroid recrudescing in old age. This patient no doubt will live for years, and I shall get the credit of curing cancer, which never existed. This is the second occasion within a short time that this experience has occurred to me, and it is just possible that similar cases may account for many of the reported instances of successful vaginal hysterectomy for cancer. Of course, I do not for a moment mean to imply that anybody would willingly record untrue cases, but one might very easily fall into such an error. The other specimen I exhibit is that of a large fibroid associated with a uterus containing a placenta. The patient came to me from Calcutta with this pregnancy and associated fibroid tumour. Of course, a delivery at any time *per vias naturales* was an impossibility. I therefore waited until the child was viable, and then performed Cæsarean section in the usual way and so delivered the child, which lived for some considerable time. I thereafter performed a modification of Porro's operation and removed the uterus and tumour entire. The patient had a very short convalescence and left the home well.

The CHAIRMAN, referring to the second specimen, said that inasmuch as the tumour was on the upper portion of the uterus, he did not think the notes sufficiently explained why delivery should not have taken place. If the pelvis was naturally large and the tumour was passed, there was no reason why the child should not have been born naturally. Of course the best way was to take away the tumour, but that did not answer the question why the patient could not have been delivered otherwise.

Dr. ROUTH pointed out that in regard to the first specimen several medical men and a microscopist, presumably an expert, had declared the disease to be cancer. In this the case resembled many that had come under his own notice, in which disease pronounced to be cancerous had turned out not to be malignant at all; it was much to be deplored that

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as yet no absolutely certain means of diagnosis had been attained, and the statistics as to alleged cures were, therefore, invalidated. No doubt it was quite possible in many cases for a woman to be delivered *per vias naturales*, in spite of the presence of a large uterine fibroid; he had met with such cases, and in one the tumour was quite as large as that before them, and he was preparing to perform Cæsarean section, but owing to an alteration in the position of the child it was born in the natural way. In another case, the tumour, though a big one, was not quite so large, and the same thing occurred. He did not give any opinion with regard to the specimen which they were specially considering. The patient did well, no doubt as a result of the able manner in which the operation was performed, but it was better not to perform an operation in these cases if it could be avoided.

Dr. HODGSON thought that the removal of the uterus must have been absolutely necessary after the Cæsarean section, as efficient contraction and arrest of hæmorrhage could not be expected considering the size of the tumour.

Dr. J. J. MACAN said that, as the Chairman had pointed out, the tumour did appear to be in the upper part of the uterus, and supposing the pelvis to have been of normal size delivery might theoretically have been possible, but even so the tumour would have remained. He thought that they must all agree that, being convinced that delivery could not take place by the natural way, the wisest course was to remove the uterus and the tumour with it.

#### DELIVERY BY BOSSI'S METHOD IN A CASE OF ALBUMINURIA AT THE SEVENTH MONTH IN A FIBROMATOUS UTERUS. By H. MACNAUGHTON-JONES, M.D., &c.

Some time since I exhibited before the Society Professor Bossi's instrument for rapid dilatation of the uterus, and specified the cases in which its use was indicated. I have quite recently employed it myself, and desire to say a word as to its action.



The foetus and placenta shown were removed from a patient who, early in the seventh month, was attacked with somewhat severe hæmorrhage. Her medical adviser, Dr. William Barter, had for some time been aware that she was suffering from albuminuria. This had greatly increased, until the urine became almost solid on boiling. There were, however, no attendant uræmic symptoms, nor any cerebral nor visual disturbances. The hæmorrhage recurring, with some attacks of partial syncope and associated sickness, I was consulted, and advised rapid dilatation and delivery of the child. For a few days there had been an absence of foetal pulsations and projections. Operation was determined upon.

The patient having been anæsthetised, she was carefully prepared, shaved, and the vagina disinfected. The body of the uterus was found to be fibromatous. In twenty minutes dilatation, without any lesion of the cervix or rupture of the membranes, was effected to the extent of six and a half centimetres. The presentation was that of an arm, with the head lying in the left iliac fossa. As it was found impossible to move the presentation, the membranes were ruptured. In the attempt to bring the head into position the arm came down, with a loop of the funis. In consequence of the impossibility of introducing the hand into the uterus the greatest difficulty was experienced in effecting version. However, by pushing back the arm and raising the head, the foot was ultimately secured and version effected. Great difficulty was also experienced with the after coming head, which was finally delivered by using the blade of a forceps as a vectis. The placenta was shortly afterwards delivered. The foetus was discoloured, and decomposition had set in, with attendant desquamation. There had evidently been placentitis, with exudations in parts and degeneration, causing in one portion a rather large separation, with resulting extravasation. Fearing that there might be portions of placental tissue remaining, the uterus was several times explored with an ovum forceps, and some placental *débris* were removed. The uterus was then douched out with formalin

solution. Two slight lacerations, caused by the delivery of the head, were secured with cumol gut, and the vagina was loosely tamponned with iodoform gauze. The whole time occupied from the commencement to the close of the operation was exactly one hour. The patient has done well.\*

Dr. Macnaughton-Jones added that he believed this was the first time the instrument had been used in this country. When he exhibited the dilator before the Society, he omitted to point out that the sheaths on the end of each blade could be removed and replaced after the os was partially dilated. Without these sheaths there was no difficulty in the initial introduction of the instrument even into an unduly contracted os. Professor Leopold, at Dresden, had used the instrument with singular success in eclampsia, as would be seen from an abstract in the May number of the Society's Journal to which Dr. Macan had just drawn his attention; but he (Dr. Macnaughton-Jones) had seen Leopold use it also in contracted pelvis.

The CHAIRMAN remarked that in spite of the objections that had been made to the instrument, it had undoubtedly proved of excellent service in the direction of rapid delivery.

Dr. F. A. PURCELL, instancing a case in which a senile and very friable uterus after the rupture of the pedicle of an expelled fibroid, and during the process of dilatation for the purpose of removing the remains of the pedicle, had been perforated by one of Hegar's dilators, said he thought there would have been no danger of such an accident with Bossi's instrument, and he thought that that instrument might be more widely employed than it had yet been. In reply to the Chairman, Dr. Purcell further explained that, in the case which he had cited, the pedicle was attached to the posterior wall of the uterus, about midway between the fundus and the surface of the external os, and acceded

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\* The description of the appliance (which can be obtained from Messrs. Arnold and Son) appeared in the BRITISH GYNÆCOLOGICAL JOURNAL of February, 1902, and in the *Lancet*, March 1, 1902.

to the request of the President to show the specimen at the next meeting.

Dr. BARTER, in reply to the Chair, said he could entirely corroborate all that Dr. Macnaughton-Jones had said as to the satisfactory effect of the instrument in rapidly dilating the cervix without interfering with the membranes in the case before them.

Dr. HEYWOOD SMITH exhibited Kurz's suture forceps, and described the ingenious way in which, when one blade had been used as a holder to introduce the threaded needle, on closing the instrument the other blade seized the needle, and, when the blades were again separated, withdrew it.

The following paper was then read:—

IS THERE ANY REAL "*DECIDUOMA MALIGNUM*"? By HERBERT SNOW, M.D.Lond., &c., Senior Surgeon to the Cancer Hospital.

By this query it is not, of course, intended to deny the long-established sequence of malignant developments following immediately upon, and often unmistakably caused by, the trauma of parturition; but to investigate how far these developments shew any title to a special term differentiating them from the ordinary cancerous new growths appearing in or about the uterus, without any question of pregnancy.

Strong doubts on the point have several times been expressed before the Society by myself and others. I therefore thought it desirable to thresh the matter out, if possible, more completely. After putting down this paper, I found that the subject had already been very ably and amply dealt with in a communication to the Obstetrical Society by Dr. T. W. Eden (*Obst. Trans.*, vol. xxxviii., 1896); and have accordingly largely availed myself of this elaborate digest, which I would recommend anyone tempted to swell the huge flood of "*deciduoma*" literature first to read.

This flood was first let loose upon us by Säger in 1889 ("*Ueber sarcoma uteri deciduo-cellulare*," *Centralb. f.*

*Gynäk.*). A primipara, aged 23, fell from a railway carriage, and aborted at the eighth week. She had continuous hæmorrhage for three weeks, and in the fourth high fever. The curette was resorted to, with relief to the bleeding, but otherwise no improvement; on the contrary an extensive inflammatory exudation appeared around the uterus, which itself became larger. There was also a large swelling in the left iliac fossa, thought to be purulent but found otherwise. Death took place seven months afterwards, with signs of pulmonary metastasis. The growth proved under the microscope to be a "sarcoma." Säger thought it had developed in the decidua, simply because it contained numbers of large cells identical with decidual cells; and also "plasmodia" resembling the decidual giant-cells. He did not suggest that foetal structures played any part in the development. Since then, as Dr. Eden well remarks, "Almost every malignant growth discovered in the puerperium has been called in Germany *deciduoma*." And now our American cousins have also taken the matter up with considerable zeal.

Now the difficulty in accepting this view of Säger's lies in the fact that the decidua contains no cell-elements distinguishable from those of ordinary connective tissue, so that even if the decidua, or some remnant of it, did generate a new growth, we should not be able to differentiate this microscopically from ordinary sarcoma or myo-sarcoma. And to constitute the disease a distinct cancer-species, it would be requisite to demonstrate special symptoms, or a clinical career materially differing from that of the latter.

Since 1889, however, the question has been considerably expanded, and I fear at the same time obscured, by becoming mixed up with that of placental development; and with the controversy whether the terminal epithelial layers of the chorionic villus are both foetal, or one maternal. I would remind the Society that the outer layer, considered by some to be maternal, is described as "a thin stratum of granular protoplasm, showing no differentiation into cells." At irregular intervals are small oval nuclei. This layer con-

stitutes the—in this connection—highly-celebrated "syncytium," and often spreads out into large "plasmodia."

The inner layer (Langhans') consists, on the other hand, of distinctly differentiated epithelial cells with large round or oval nuclei. It is contended by some that this layer is not concerned in the generation of deciduoma malignum, though every microscopist must recognise the difficulty of establishing such a position when a malignant growth is in question.

The reference of deciduoma to chorionic epithelium obviously controverts the views of the originator, and implies that the title he bestowed on it is erroneous. But assuming for the moment that the reference is accurate, we have then to ask, whether there is a specific *epithelial* cell element which will enable us to differentiate "deciduoma malignum" when we encounter it? It has been already shown that there is no such badge of connective tissue origin, because the decidua contains no pathognomonic cell whatever.

Everything here turns on the "syncytium," and the "plasmodial masses" supposed to be derived therefrom. No chorionic villi have ever been proved in these growths.

Now the most learned pathologist extant could not give any definite opinion upon the precise nature of a malignant growth, based merely on plates in professional journals, supposed to depict microscopic phenomena. How much less the ordinary gynæcologist, who has to run and read! The difficulty is at the present time enhanced by the prevailing fashion of reproducing micro-photographs, which are always in the highest degree misleading, when any malignant cell-growth is concerned. A conscientious drawing *may* convey the truth, but a micro-photograph *cannot*. The phenomena visible in a microscopic field are so complex that it is utterly impossible to reason about them collectively. You can prove **anything** only by partially ignoring them, just as the **mathematician** has to define the line as "length without breadth." No line is without breadth, but for the particular **purpose** in view that breadth must perforce be ignored.

Then, again, as I have often previously pointed out, the habit, so far as I know universal among professional pathologists, of examining prepared sections only, involves numerous errors. It must be stigmatised as vicious and pre-eminently unscientific. A prepared thin section admirably displays the histology of a morbid growth, and the correlation or distribution of its component cells. But, as a rule, the process of preparation for section-cutting completely disguises the shape of those cells, to say nothing of (perhaps) other important characters. On a correct appreciation, however, of the shape an accurate recognition of the species of a malignant lesion commonly hinges.

No microscopic report in such a connection should be held valid without resort to each of the two methods. It should contain a description or delineation of the individual cells as nearly as possible in their natural state; in addition to the routine account of their distribution in the prepared thin section.

I would remind the Society that the cases of "deciduoma malignum" have been mostly recorded by gynæcologists, who have met with only this single instance, and with the majority of whom, pathology is hardly a strong point.

But experts in the habit of microscopically examining other forms of malignant tumour, state that there is absolutely nothing in the so-called "plasmodial" cell-masses which cannot be exactly paralleled by the sections of any rapidly-growing sarcoma from other parts of the body. In the latter you commonly find large masses of nuclei embedded in a jelly-like material which in the prepared thin section exhibits no distinction of separate cells; though on examining a simple "scraping" with the aid of a gentian violet, or some similar stain, there is no difficulty in discriminating the cell-elements, spindle-shaped and multi-nucleated.

The differentiation of deciduoma malignum on microscopic evidence alone, whether an epithelial or a connective tissue origin be in question, thus falls to the ground.

Before leaving the microscope I exhibit the *Journal of*

*Pathology and Bacteriology* for October, 1898, which contains an instructive example of what I regard as the manufacture of this supposititious lesion solely on microscopic evidence. A case is very elaborately reported by Professor J. K. Kelly and Dr. Treacher, who refer its origin to the chorionic epithelium, and illustrate their paper by microphotographs. If you look at figs. 8 and 9, pl. xxxviii., you see the delineation of a "large plasmodium," on the faith of a micro-photographic view assuredly not sufficiently clear to warrant such a construction, and displaying no feature whatever not found in ordinary sarcoma of other parts. Secondly, when you turn to fig. 14, pl. xxxix., you see what appears to be a mass of huge spindle-shaped nuclei and cells, characteristic of Sarcoma, or of what is most probable, when the uterus is concerned, of Myo-sarcoma, arising from the muscular nuclei.

As some reference was made here recently to certain "branching cells" as characteristic, I also exhibit the drawing of a typical Myxoma, as published in my "Treatise on Cancers," showing malignant branching connective-tissue cells.

We will now glance at some of the typical cases, mainly with the view of discovering whether, as the microscopic evidence fails, there is anything in the clinical history to warrant the view of a distinct cancer species.

At the April meeting of this Society our esteemed President reported a case. He expressly stated that he did so on the strength of a microscopic report furnished to him. There had been no pregnancy for six years. The only unusual clinical feature was the occurrence of a secondary nodule, I think, on the vulva. His paper I regard as specially valuable in the present connection, because it demonstrates that lesions, which expert microscopists identify with *deciduoma malignum*, attack the uterus altogether apart from pregnancy.

Marchand (*Centralb. f. Gynäk.*, 1889, vol. viii., p. 132) records two cases. In the first a girl, aged 17, had a bleeding tumour of the vaginal wall which was scraped. It recurred

in a few days and was scraped again. A large abdominal tumour appeared, followed by death in three weeks from pulmonary embolism. At the autopsy a distended and ruptured left Fallopian tube was found; it contained a necrotic mass resembling placental tissue, and growing apparently from its wall.

No foetus and no chorionic villi were detected. There was no evidence of pregnancy in any shape; and the case may very well have been a primary malignant tumour of the Fallopian tube.

His second case was that of a noni-para, aged 34. There was severe hæmorrhage in the third week after a normal labour at full term. A large quantity of blood-clot and placental-looking tissue were removed. Hæmorrhage recurred four months later; and was similarly treated. On a third attack within a few weeks, the patient was anæsthetised. The uterus was found enlarged, retroverted, and adherent to the floor of Douglas' pouch. In attempting to replace it, perforation by the sound occurred, so hysterectomy was performed. The woman remained well six months afterwards.

There is obviously no clinical symptom differentiating this case from one of ordinary uterine carcinoma.

Whitridge Williams's case (*Johns Hopkins Hospital Reports*, vol. iv., No. 9) was that of a negress, VI.-para, aged 35. In the second week after normal labour a small painful nodule appeared in the right labium majus. By the fifth week this had reached the size of a hen's egg, and began to slough. The woman died three months afterwards seemingly of septicæmia. An extensive sloughing tumour of the vulva, a small secondary growth in the vaginal wall, two small tumours in the uterus, the larger only  $1\frac{1}{4}$  in. by  $\frac{7}{8}$  in. by  $\frac{3}{4}$  in., metastases in left ovary, lungs, spleen, and kidneys were the *post-mortem* phenomena. The existence of any uterine tumour had not been suspected till the autopsy.

There can be little question that the vulvar growth was here the primary lesion.

Gottschalk's case ("Das Sarcoma der Chorionzotten,"



*Archiv. f. Gynäk.*, Bd. xlvi.) was that of a V.-para, aged 42. Severe hæmorrhage occurred about the sixth week of the puerperium. Curette used, and again twice in the next four months. The enlarged uterus was then explored, and soft masses twice removed by the fingers. A prompt recurrence led to hysterectomy in August, 1892, six months after the first attack of hæmorrhage, which is assumed to have been due to a miscarriage. The woman remained well till the January following; then a large mass appeared in the right hypochondrium, and death followed in March. There were metastases in the lungs, spleen, and right kidney.

Gottschalk believes that his case arose from the sarcomatous transformation of the stroma of retained chorionic villi. Eden states that the structures figured as sarcomatous villi, are very little like villi at all, and doubts the fact of gestation. The clinical history is obviously in no wise distinctive.

Miss Julia Cock's case (*Brit. Med. Journ.*, 1895, p. 1,819) was that of a woman, aged 30, who had been three weeks confined of her fourth child. The labour was normal, and the placenta considered complete. Severe hæmorrhage took place on June 19. On the 20th, under anæsthesia, a mass, in appearance and touch resembling placental tissue, was found adherent to the posterior uterine wall, and was removed by the finger and curette. The patient died on July 25, seven weeks after labour. Metastases were found in an ovary and in both lungs.

I will ask you particularly to note this case; because it exemplifies the most important practical corollary I shall presently lay before you. Unfortunately, as usual, the early history is defective. But even in the most acute forms of cancer some time is required for the development of widely sundered metastases; and there can be no doubt that the malignancy had commenced long before parturition, to say the least.

Kelly and Treacher's case cited above (*Journal of Pathology and Bacteriology*, 1898, No. 3, vol. v.) refers to

a II.-para, aged 29. On February 2 she consulted her medical attendant for hæmoptysis, supposed to be tuberculous. On June 18 she passed a mole as large as a Jaffa orange. On August 7 a growth was found on the anterior vaginal wall and was diagnosed as an "ulcerating hæmatoma." The patient died on October 19. At the autopsy the posterior uterine wall was found occupied by a tumour as large as an orange, resembling to the naked eye placental tissue. Huge masses occurred on both sides of the vagina and cervix. The vessels were very large and numerous; one large vein was filled by an oval mass of new growth. Both lungs were full of secondary metastases.

The history denotes malignancy of many months' standing at the lowest computation. We may not unreasonably infer therefrom that it preceded the pregnancy and caused the eventual death of the foetus. Hæmoptysis, presumably due to the pulmonary metastases, is described as the first ill-symptom. That would imply an advanced stage of disease. We are not told when impregnation actually took place.

Dr. Herbert Spencer's case (*Obst. Trans.*, 1896, vol xxxviii.) was that of a II.-para, aged 27. Hæmorrhage occurred twenty-eight days after labour. Death followed ten and a half weeks after delivery. An ulcerated and gangrenous growth was found at the placental site; the ulceration having nearly perforated the fundus. There were metastases in the cervix and lungs. Apparently a "large-celled sarcoma with typical syncytium."

Here again was a malignant lesion of long-standing. There does not appear in the report anything to show decidual origin.

Immediately preceding this in the volume (*Obst. Trans.*, xxxviii.) is another headed "Deciduoma Malignum," and recorded by Mr. Rutherford Morison. A woman, IX.-para, aged 35, bled seriously six weeks after confinement. This was followed by other attacks. The Clinical Research Association reported the scrapings to show "abundant evidence of squamous-celled epithelioma." There was subsequent recurrence in the lungs, and death.

Apfelstadt and Aschoff (*Archiv. f. Gynäk.*, vol. l., 1896) record two cases. A woman, aged 33, aborted at the fourth month on October 4, 1894. The membranes were passed unruptured. Severe uterine hæmorrhages followed. On February 5, 1895, a mass was removed from the uterus. On May 17 the curette was used. On May 24 hysterectomy was performed, with death on the twenty-sixth day subsequently. The uterus contained a cancerous growth. There were metastases in liver, both lungs, pancreas, mesentery, intestines, and cancellous tissue of head of one femur.

The second patient was aged 42, and was delivered of a vesicular mole on March 21, 1895. The left labium became swollen, and the swelling extended up the vagina. On June 19 it was laid open; then, to the surprise of the observers, tissue "broadly resembling a vesicular mole was found growing from its walls." On June 20 similar masses were removed from the uterine cavity. The woman died from pyæmia on July 25. The spleen and lungs were secondarily implicated.

The extensive secondary lesions of the first case make it noteworthy. They denote a lapse of many months, and the almost certain commencement of the malignant process before impregnation. The second would seem to have been a primary sarcoma of the labium or vagina, acute under the hyperæmia of pregnancy.

Lastly, I would merely cite a case reported by Schauta (*Centralb. f. Gynäk.*, vol. ix., 1895), because, in connection with it we find formulated (*Brit. Med. Jour. Epit.*, April 13, 1895) the highest ultra-refinement upon this hypothetical decidual or chorionic lesion by division into three distinct forms.

"In the first, proliferation of the connective tissue of a decidual relic occurs (Gottschalk's sarcoma of the chorionic villi). In the second, the epithelium of the villi proliferates (Klein's carcinoma of the villi). In the third and commonest variety the decidua cells and not the epithelium of the villi proliferate; hence the new growth must be reckoned as a sarcoma (sarcoma deciduo-cellulare, according to Schauta)."

Truly a pathological net, with meshes sufficiently wide!

Eden's verdict on the twenty-eight cases recorded to 1896 is that "several were ordinary forms of uterine cancer. The remainder all possess the general characters of sarcomata."

I submit that the only conclusions possible under the circumstances are that the term "deciduoma malignum" is misleading and unscientific. That, so far, no valid evidence of the generation of malignant growths from placental structures, whether decidual or chorionic, has yet been adduced. That the lesions described under the above title do not differ, microscopically or clinically, from the ordinary malignant diseases of the uterus, Carcinoma, Sarcoma, or Myo-sarcoma.

Moreover, I would strongly urge on the Society that the practical bearing of the cases so reported has, in eagerness to startle us with something rare and strange, been overlooked, for the records of a considerable number indicate that the malignancy had commenced before impregnation, but had not been recognised until, in most instances, abortion—in a very few delivery at full term—had taken place. The latter event is, of course, rare, and not to be accepted without scrutiny. Still I cannot see how the clinical facts can be interpreted otherwise. We find ourselves face to face with extensive lesions which must have been established long before parturition. What we know of cancer-causation elsewhere renders it highly improbable that they can have commenced during pregnancy. You never have "cancer" set up while healthy cell proliferation is going on. The only inference possible is that the malignant development must have begun before impregnation; the phenomena of cancer in the uterine body, always for a time obscure and insidious, being masked by the pregnancy.

Unfortunately, all the histories I have read are extremely defective, both as to the mode of causation, and the early career. Many bear eloquent testimony to the futility, and indeed to the dangers, of the curette in these puerperal cases.

often used, as it were, in the dark. The only valid treatment is complete hysterectomy.

With greater circumspection and more accurate diagnosis in the early months of pregnancy; with recognition of a possible concealed malignant lesion concurrent with a living foetus; with the precaution to dilate and examine digitally, before resorting to the curette during the puerperium, some of the disasters here apparent should be rendered impossible in the future.

Dr. HEYWOOD SMITH (Chairman), after alluding to the able paper recently read to the Society by their President, Dr. J. Halliday Croom, said that on the question as to whether any line of demarcation at all could be drawn between the so-called *deciduoma malignum* and ordinary sarcoma of the uterus, pathologists held very different views; some light might be thrown upon it by those Fellows of the Society who were working on cancer, if they could decide the actual site of the malignant development that had been called *deciduoma malignum*. Ordinary sarcoma of the body of the uterus originated in the connective tissue of the uterine wall, and, theoretically, at all events, there would be ground for a distinction between it and *deciduoma malignum*, if there was any truth in attributing the beginnings of the latter to the decidua. It was a striking fact that in many of the reported cases of this affection the patients seemed to have lost ground rapidly, and to have died soon after curetting. He was himself inclined to think that curetting was too much the fashion, and that it was a proceeding that caused very often more irritation than was intended or desirable, and thereby led to the extension of inflammatory disease or malignant new growth. Much stress had been laid upon the occurrence of secondary deposits in the lungs in *deciduoma malignum*, but it had not been demonstrated that such metastases manifested themselves more freely in that connection than in ordinary cancer of the body of the uterus. In esteeming a drawing more trustworthy than the reproduction of a micro-photograph, he thought Dr. Snow was rather

hard upon authors who used micro-photographs. A drawing was necessarily subject to bias, and its author could not always avoid accentuating, quite involuntarily, some points which a photograph would have represented with more truth.

Dr. MACNAUGHTON-JONES maintained that as a certain condition arising out of a pre-existing state of pregnancy had been shown in a very large number of cases to be associated with a definite train of symptoms, they were right in recognising that condition as a distinct disease. With further investigation and more accurate knowledge of its pathogenesis they might agree on a better name for that condition than deciduoma malignum, but he thought that as practical men they must admit its occurrence; whether it approached carcinoma or sarcoma in its histology was of little importance compared with the fact that it was a malignant new growth associated with products of pregnancy, and demanded early recognition and prompt extirpation.

Dr. J. J. MACAN said that on one point they must all agree with Dr. Snow, that is to say that the term "deciduoma malignum" was improper and should be abandoned. Writing in 1898, Professor Veit recognised the existence of the disease described by Sanger as "deciduoma malignum," though he considered it to be only a sarcoma modified by pregnancy, and enumerated at least ten names which had been given to it. Dr. Haultain, who in 1899 was able to refer to ninety recorded cases, preferred the name "chorio-epithelioma malignum," suggested and employed by Marchand, or "trophoblastoma" (Kanthack). To the ten enumerated by Veit we might add "epithelioma serotina choriale," "chorio carcinoma," "carcinoma uteri syncytiale," "carcinoma chorio-genes uteri," given by various observers, and though the multiplicity of these names indicated opposing views as to pathogenesis, they all recognised the existence of the malignant lesion originally called "deciduoma." Widely as Veit differed from Marchand in his explanation of the facts, there was no variance between them as to the clinical aspects and essential microscopic characteristics of the disease, which

was met with always in connection with pregnancy, and at the site of the placenta, which caused definite clinical symptoms, hæmorrhage of a profuse spouting character, a foul foetid discharge, rapid cachexia, fever, and, in default of extirpation, death. It was moreover accompanied by a remarkably quick development of secondary deposits, not only in the lungs, as was usually the case, but frequently also in the brain, the liver, and the kidneys, and, as had been recorded time and again, early metastases in the vagina and labia. With that clinical picture of the disease, they had a microscopical aspect so definite that Veit stated that the differences in the conditions reported were unimportant. In no other disease had the characteristic trabecular masses of protoplasm been identified, and in regard to the possibility of the development of sarcoma during pregnancy, Dr. Snow himself stated that as cancer is not set up while healthy cell proliferation is going on, such development was most improbable, nor does the implantation of an ovum in a sarcomatous mucosa seem much less so. Whether it was to be considered a sarcoma, a carcinoma, or an epithelioma, this malignant condition had been recognised as constituting a definite disease in such a very large number of cases, by men of well-established reputation in the profession, that it seemed to him idle to ask "Is there any real deciduoma malignum?" By whatever name it might be called, there was such a disease, and they must be prepared to meet and deal with it.

Replying to a question of Dr. Hodgson in regard to the case recorded by the President being unconnected with pregnancy, Dr. Macan pointed out that the President had not excluded the possibility of abortion.

Dr. SNOW, in reply, said that the authors probably did not use the microscope but depended on the reports of others. If they had employed the microscope to any considerable extent, especially in reference to malignant disease, they would have appreciated what he said about micro-photographs. If they had cautiously to examine a thin section

of a new growth presenting some pathological or histological problem to be solved, they would find all the details in the field so extremely complex that a considerable portion must be ignored in order to arrive at any definite conclusion. They must concentrate their attention on some of the elements to the exclusion of others. He objected to microphotographs, not because they blurred the outline but because they gave an extreme complexity of details which were on that account inherently misleading. Any well-educated practitioner could examine a typical cancerous growth microscopically, and affirm its malignancy at a glance; but that was rough work, and to pass beyond, so as to discuss puzzling questions of origin or causation, needed much greater care and accuracy, and such as was impossible with a microphotograph. Most of these decidual cases appeared to have been acute sarcoma or myosarcoma. All, with the exception of one, brought before the Society at the April meeting, had been in connection with pregnancy. Dr. Macan had reminded them that Dr. Haultain, in 1899, had referred to ninety cases; those cases were mostly reported by German pathologists. It was impossible for him (Dr. Snow) to go over all reported cases in his paper. He thought he had quoted rather too many as it was. He selected the most typical cases he could find. If a case was described by some foreign observer there was a great tendency to accept at once what was stated without question. He thought they should hesitate implicitly to accept assertions on the sole basis of high sounding foreign names whose owners were often otherwise unknown to fame. A little wholesome scepticism would do much to purify the atmosphere of both gynæcology and pathology. Nothing was more singular in connection with deciduoma malignum than the absence of English names till quite recently. First of all they had German names, secondly American, and now British, but for years together not a single case had been recorded in England. Dr. Macan had said that they found malignant growth of definite microscopical aspect. That had not been



proved, and had been distinctly contradicted by qualified observers, who affirmed there was nothing differentiating these lesions from sarcomatous deposits developed in other parts of the body. Again there was nothing clinically to separate the recorded examples from the phenomena naturally arising from any malignant uterine disease under the added stress of pregnancy, as was pointed out in Dr. Eden's paper, to which reference had already been made. He therefore submitted to the Society that the question of a malignant development from placental or foetal structures had still to be proved, and secondly, that the practical aspects of cancer in the pregnant uterus should receive more careful attention in the future.

*NEW FELLOWS.*

THE following gentlemen have been elected to the Fellowship of the British Gynæcological Society :—

Malcolm Campbell, M.A.Edin., M.D., C.M., 20, Coates Crescent, Edinburgh.

K. Franz, M.D., *Privat Docent* in the Faculty of Medicine, and Pathologist to the Frauenklinik of the University of Halle.

George Sullivan Clifford Hayes, M.R.C.S., L.R.C.P., Parncah Purecal Lines, Bengal, now of Soho Hospital for Women.

James Lamond Lackie, M.D., C.M., F.R.C.P.Edin., 2, Randolph Crescent, Edinburgh.

James Phillips, F.R.C.S.E., M.R.C.S., L.R.C.P., 2, Duckworth Grove, Bradford, Yorks.

William Macrae Taylor, M.B., C.M., F.R.C.S.E., 2, Randolph Place, Edinburgh.

*ORIGINAL COMMUNICATIONS.*

## INTRODUCTORY LECTURE TO THE COURSE OF GYNÆCOLOGY, BIRMINGHAM UNIVERSITY.

BY PROFESSOR J. W. TAYLOR, F.R.C.S.

GENTLEMEN,—In this first lecture of my course on Gynæcology, I should like to deal with certain anatomical facts and considerations which have a special bearing on the diseases of women.

I do not intend to enter into much detail—this I leave for other Professors and for individual study—but I would like to be certain that you understand some of the first principles which may be said to govern the making or building of that region with which we are chiefly concerned—the female abdomen and pelvis.

Now, if I say that this region depends on the bones, muscles, aponeuroses and fasciæ surrounding, for the integrity of its shape and, very largely, for the proper employment of its various functions, I shall probably to many of you be simply stating a truism which seems to have little or no practical bearing.

Yet it is only during the last few years that we have learnt how absolutely dependent the body-wall is on every link of the chain which goes to its formation, and that (for example) an abdominal incision in the middle line is much more likely to be followed by “giving way” of the cicatrix and by rupture or hernia, if the various constituents, and especially the hole

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(The lecture was illustrated by diagrams—Numbers 13, 6, and 49 of Auvard’s “Planches Murales”—by lantern slides, blackboard sketches, and by demonstration on the female pelvis).

in the aponeuroses, be not accurately sewn together. Speaking generally, as regards the various constituents of the body-wall, one may say perhaps that as supports the bones are most solid and certain, the stronger fasciæ and aponeuroses of next importance, and that the muscular tissue itself, although of greater power and thickness as a supporting structure, is really weaker than the more membranous fascia, for muscle tissue is subject by any injury to its connections or attachments to many displacements and retractions, which may seriously interfere with its proper action or render it almost useless.

Let us for a short time consider this region of the female abdomen and pelvis in its entirety, enquiring more particularly into its boundaries, its bases of support, its special elements of strength and its special points of weakness. I want to do this in the plainest and simplest manner possible. If we take a barrel, which has some superficial resemblance to the region we are discussing, we see at once that the iron rings which bind its staves together form in the main its special source of strength, while the junctions of the ends, the chinks or lines between the staves and the necessary holes for tap and vent-peg, may all be looked upon as points of weakness.

Similarly in the female abdomen (which sometimes has to contain larger amounts and heavier weights than any male abdomen) it is instructive to mark the generally compact and powerful nature of its coverings, to note where these are poor or wanting and to recognise, when necessary, how Nature provides for the guarding or support of the more exposed and less protected regions.

Somewhat egg-shaped in outline, with the smaller end downwards, the abdominal cavity occupies the whole of the trunk-space below the thorax. Behind, it is supported by the lumbar spine, the big spinal muscles, and the lumbar fascia; laterally, by the abdominal muscles and aponeuroses, mostly in three layers—the external oblique, the internal oblique and transversalis, with fibres taking different directions—criss-crossing, and therefore wonderfully adapted to

any and every strain. In front the strong firm muscle of the rectus abdominis, on either side of the middle line, protects the whole of the central region, and when contracted not only gathers the anterior wall together, but forms a kind of second or anterior spinal column, between which and the spine itself the other muscles have restricted motion only. Above, it is bounded by the arch of the lower ribs, and covered in by the vault of the diaphragm, and below, its inferior contracted extremity is held as in a cup by the bony pelvis, the recto-vesical fascia and the levator ani muscle. The ilia, spread out like hands, palm upwards, form the rim or everted margin of the cup, but the cup itself is formed first by the pelvic and recto-vesical fascia, and then, secondly and mainly, by the levatores ani and coccygei.

Let us look at this cup from within; first we see it as a smooth-lined, glistening cavity, dark and rather inaccessible, filled with structures that we must consider later, but in spite of this still obviously appearing as a special cup or pocket, extending down out of the abdominal cavity, and lined like it with peritoneum.

If we remove its contents, dissect off the peritoneum and let light into its cavity, what do we find?

Beneath the peritoneum we find the pelvic fascia attached laterally to the brim of the pelvis, behind as low down as the spine of the ischium and in front to the lower part of the symphysis pubis. Between these points there is a tendinous band called the "white line," where the pelvic fascia divides into the obturator fascia (covering the obturator muscle) and the recto-vesical fascia which lines the "cup" from within, and therefore closes or sheathes the inner surface of the pelvic cavity, so that under the peritoneum we have the pelvic fascia at the sides of the pelvis and below this the continuation of the pelvic fascia called the recto-vesical fascia, which sends connective tissue prolongations to the sides of the bladder, between the bladder and vagina, between the vagina and the rectum and behind the rectum. Underneath this, again, we find the levatores ani and coccygei muscles.

Instead of regarding these from a purely anatomical standpoint, as four distinct muscles having separate origins and insertions, I would ask you to regard them all as forming one great muscle—the “pelvic diaphragm.” For very much as the vault of the diaphragm closes in the abdomen above, so does this lower and smaller diaphragm of the pelvis close in the abdominal cavity from below.

The muscle arises from the back of the pubes on each side, from the “white line” laterally and from the spines of the ischia behind these. From this extended attachment on both sides it sweeps downward around the vagina and rectum, the anterior fibres ending in the central point of the perineum between the vagina and anus, the middle fibres running into the rectal wall, but the greater part of the muscle passing behind the rectum to the sacrum and coccyx and to a central tendon between this and the anus—the coccygo-anal ligament. Looking at a dissection of this muscle from within the pelvis, we see that the coccygei are simply the posterior part of the levatores ani, and that the combined muscles form a strong musculo-membranous diaphragm or sling, which bears the strain of intra-pelvic pressure and forms, with the recto-vesical fascia above it, the most important part of the pelvic floor.

Now what do we find below this?

If we still trace the “pelvic floor” from the levatores outwards, we find on the under surface of the levator ani a thin membrane (the anal fascia), and between this and the skin posteriorly the ischio-rectal fossa filled with its cushion of fat. In front of this, between the anus and vagina, there is the perineal body and central point of the perineum where the small transverse muscles of the perineum, the sphincter ani, the sphincter vaginæ and the anterior fibres of the levator ani, join; while still in front of this we find the two layers of the triangular ligament (the deeper layer of which is formed by the pelvic fascia), the deep layer of the superficial fascia, the superficial layer, and the opposed labia guarding the entrance of the vagina. The vagina and urethra pass through

all these structures to their exit (or entrance) at the vulva.

Accordingly the cup of the pelvic cavity is formed above by a perfect ring of bone, covered with pelvic fascia and peritoneum.

Below this we still find the peritoneum and fascia, though here the latter has another name (recto-vesical), but the lower part of the cup is formed by muscle instead of bone. The muscle lies between two layers of fascia, and the triangular or pyramidal space left on either side between this cup of muscle and the side of the bony pelvis is filled in with fat.

The whole forms an admirable mechanism attached all round, either by fascia or muscle, to the complete ring of the bony pelvis. Together with the special muscles and fascia filling in the space between the rami of the pubes, it constitutes the final and lowest floor of the great abdomino-pelvic cavity and is therefore known as "the pelvic floor."

Now let us turn from the consideration of the strength of the abdomen and pelvis to the consideration of its special points of weakness.

The first is at the umbilicus or navel. Here, as you know, the abdominal wall is practically deficient, and therefore large herniæ are apt to occur, especially in fat women, the hernia usually consisting of omentum, but sometimes of intestine also.

The next is in the middle line, between the recti muscles, and the resulting hernia is, so far as I know, peculiar to women who have borne children. In this hernia there is simply stretching of the so-called "linea alba" or aponeurosis in the middle line between the recti and consequent displacement of the recti muscles, the contour of the abdomen on deep inspiration or coughing, showing the protrusion of abdominal contents between the two recti.

Two other points of weakness occur at the inguinal canal on each side, where the round ligaments are inserted. As you know, they pass obliquely through the abdominal wall, the internal ring being at some little distance from the external ring, so that the immediate effect of intra-abdominal

pressure is to press the sides of the canal more closely together and prevent any protrusion. Nevertheless, hernia does occur here, but chiefly, perhaps, when such straining or stretching has occurred as to bring the two rings or openings more nearly opposite each other. The mechanism by which, as a rule, any hernia is prevented here is worthy of special notice, for a very similar mechanism may be said to be repeated in another situation to which I shall shortly direct your attention.

The two femoral openings form of course other two points of weakness, and especially so in women, the increased width of the pelvis tending to enlarge the openings on the inner side of the femoral vessels.

Finally, in the pelvic floor we find the special point of weakness in the middle line where the channel of the vagina\* may be almost said to directly perforate its whole thickness. The vagina does not go right through, but pierces the pelvic floor diagonally, from its anterior part below to its posterior part above. Here it terminates in a blind extremity into the anterior wall of which the uterus is inserted. This channel of the vagina may be said to divide the pelvic floor into an anterior pubic and a posterior sacral portion, and it has accordingly been customary during recent years to describe the pelvic floor as consisting of two segments, "sacral and pubic."

It must not be forgotten, however, that there is no complete separation between the pubic and sacral segments, that they are continuous laterally with each other, and that particularly the pelvic diaphragm of the levatores—the most important constituent of the pelvic floor—forms a nearly circular muscle, which has no true line of cleavage into an anterior and posterior section.

Still this channel or canal of the vagina does divide and therefore *weaken* the pelvic floor. Unlike the other hernial

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\* The rectum also goes through the pelvic floor, but not so directly as the vagina, and for the present the consideration of its effect in weakening the pelvic floor may be deferred.



canals, too, it has physiological lines of opening or distension. For example, in child-birth it is subject to such violent and extreme dilatation as to occupy almost the whole of the available pelvic space, to temporarily obliterate the pelvic floor and to make it practically non-existent. Again, it is subject to special injuries which may leave the lower end of it wide and gaping. Very often in child-birth, the lower orifice is widely torn, and as we shall see later on, instead of a mere slit, we find a chasm or open passage which offers no protection to the structures above it. And yet again, one has to take cognisance of the fact that the erect position usually assumed by men and women, while affecting all the hernial openings more or less, may well affect the lowest opening most by bringing it more directly under the influence of gravity. The constant standing, too, necessitated by the occupation of so many shop-girls, waitresses and servants, tends to wear out the tone and strength of the supporting muscles. So it is not surprising to find that of all the hernial openings, that of the vagina is perhaps the very worst—the most subject to hernia—not hernia of small intestine (except in extreme cases), but hernia of the organs in direct relation to its walls, the uterus, the bladder and the rectum.

The natural mechanism by which, under healthy conditions, this is prevented, is of two kinds. In the first place the mechanism of the inguinal canal may be said to be repeated. As we have seen, the vagina traverses the pelvic floor in a slanting or diagonal direction, from the anterior inferior aspect at the vulva to the posterior superior part at the insertion of the uterus, and as the uterus normally lies forwards the only effect of downward pressure (so long as the integrity of the pelvic floor is maintained) will be to drive the anterior wall of the vagina into close apposition with the posterior wall and to increase the compactness and solidity of the substance of the pelvic floor. Indeed, in a perfectly healthy woman this is the normal condition of the vagina. It is no open tube, but rather a transverse cleft or fissure lined by mucous membrane, which, on cross section,

is seen to have very much the shape of a broadened capital H.

But there is another means by which the vagina is protected and supported. If we turn again to a somewhat closer consideration of the levatores ani, we shall see that the thickest band of fibres is that which is attached to the back of the pubes on each side, and that these may be said to closely encircle the vagina and rectum; indeed, some anatomists describe this part of the muscle as going round the vagina and rectum from pubes to pubes without a break, no tendon intervening (Luschka). Whether this be correct or not there is no doubt that the two levators do here form (whether by tendinous join or not) a perfect muscular sling, the two sides of which, moreover, are normally kept very close together by their union with the sphincters and transverse muscles of the perineum between the rectum and vagina: if we revert to our original rough simile, this is the hoop of the barrel which binds the lowest part of the staves securely together. Or, if we regard the abdomen and pelvis as a large sack or bag with its mouth or open end held downwards, containing inside it a smaller bag (the uterus) with *its* mouth also held downwards, then this band of the levatores is the purse-string which gathers the mouth together and keeps the contents from falling out.

As I have written elsewhere: "This it is which may be said to make the final bend of the lower rectum above the anus, for the loop hugs its concavity. This it is which, when the perineum is altogether gone, sometimes by its development and power, restores support and prevents prolapse, the loop of the levators drawing the rectum towards the symphysis and still maintaining a potential pelvic floor when its lower actuality is destroyed. This is the archway through which the pessary is felt to slip on introduction, upon the pillars of which it rests. This is the circle which binds the pelvic floor in one and makes all divisions of it artificial and to some extent misleading." An interesting contrast may be noticed in the action of this loop of the levator ani with the

loop of another muscle, the sphincter ani. The latter arises from the tip and back of the coccyx behind the anus and passes right round it back again to the coccyx, while the loop of the levator comes as we have seen from the pubes in front and passes right round the anus or rectum back again to the pubes.

Such, then, are the main facts regarding the strength and weakness of the abdomen and pelvis which need recognition and continual remembrance. Let me give you one instance of how this knowledge may wisely affect our practice.

Some women are well made and muscular and never suffer from hernia, others are weak and ill-developed and soon show signs of wear and tear. A girl of this class first suffers perhaps, from inguinal hernia. She goes to a surgeon who advises a double truss with a firm and strong spring, so that there may be no danger of the rupture coming down while the patient is at work; but if the spring be at all too strong and the pressure on the parts excessive, sooner or later the patient is likely to come to the gynæcologist with uterine prolapse or hernia.

The pressure on the part should be only sufficient to just keep up the hernia, or, if preferred, a more radical cure be done by operative means.

All of these hernial openings are more or less inter-dependent. If a woman is weak in one, she is usually weak in all.

Now let us turn back to the interior of the abdomen and pelvis. Everywhere lining this we find the smooth glistening membrane of the abdominal and pelvic peritoneum, and one of the main points to remember and appreciate in gynæcological work is that this pelvic peritoneum is to a very large extent a movable structure both in pregnancy and disease. Unlike the muscles and fasciæ, which are usually fixed and only very slightly elastic, part or even the whole of the pelvic peritoneum may be raised by swellings underneath it, and so occupy altogether different relations from the normal. As

we shall have occasion to notice hereafter, the displacement occasioned by some tumours, such as large myomata and embedded cysts of the ovary, may be so extreme and extraordinary (and this without the slightest pain or other symptom referable to the change in peritoneal relations) as to make it a matter of very great difficulty to follow the changes that have taken place. Perhaps if I lightly cover the bony pelvis with a thin silk handkerchief to represent the peritoneum, leaving this absolutely free and unattached, I may possibly be able to give you a clearer idea by this of what may happen when swellings occur underneath it than I could by using any fixed diagram or model showing only its normal relations.

Is there a phlegmon beneath it? The peritoneum moves away as the abscess grows, and the latter may come to the surface above the groin and be opened here without any visible relation to the peritoneal membrane. Or (to take a still more familiar instance), is there some obstruction to the passage of urine from the urethra? In half a day or so one may find a tumour reaching to the umbilicus which has stripped up the peritoneum from the anterior abdominal wall. The catheter is passed, the bladder is emptied, and in five minutes the tumour is gone and the peritoneum resuming its usual relations.

It must not be supposed, however, that the study of the normal anatomy and distribution of the peritoneum may be neglected. It rather requires a closer study *because* of the alterations it may undergo. One large fold of it passing across the pelvis and two small fossæ or pouches, one in front of this fold and one behind it, particularly claim our attention. I need scarcely say, I suppose, that the fold I refer to is that which covers the greater part of the uterus in the middle line and forms the broad ligaments on either side of this.

This fold, sometimes called the "mesometrium," with its contained uterus, normally falls forward, the body of the uterus resting mainly on the bladder, the normal position of the uterus being with the fundus forwards, or in normal "anteversion."

Projecting from the posterior or upper layer of the fold on either side of the uterus is the ovary, and running along the free margin of the fold from the top of the uterus on each side we find the Fallopian tubes, while between the two layers of the broad ligament we find the foetal remains of the parovarium, so that this fold of peritoneum contains either within its two layers or projecting from it, all the internal sexual organs of the woman, the "internal genitalia."

Looked at from above this fold on each side of the uterus is seen to spread out towards its pelvic attachments, the round ligament of the uterus carrying the anterior layer well forward towards the inguinal ring, while the posterior layer at the "infundibulo-pelvic ligament" (which passes from the abdominal end of the Fallopian tube to the pelvic wall) curves rather backwards toward a line between the great sacro-sciatic notch and obturator foramen. A still further broadening posteriorly is caused by the ovarian ligament which passes from the uterus to the ovary and carries the posterior layer backwards towards the ovary. The top of the broad ligament, however, forms a thin lappet or flap which is freely movable, and it is this which contains the Fallopian tube and parovarium.

The mesometrium consequently divides the cup of the pelvis into two pouches, the pouch in front being comparatively shallow and hidden by the natural falling forwards of the uterus, that behind forming a deep and rather large funnel-shaped cavity which reaches to the very bottom of the pelvis. Both of these are important from a surgical aspect. That in front, called the "vesico-uterine pouch" or "plica vesico-uterina" (between the uterus and bladder), is opened from the vagina in the operations of anterior vaginal coeliotomy and vaginal hysterectomy, while the pouch behind the uterus (called the pouch of Douglas) is the lowest part of the peritoneal cavity and that most commonly opened for the relief of small tumours behind the uterus and for the purpose of pelvic drainage (posterior vaginal coeliotomy or posterior colpotomy).

One other important peculiarity of the female pelvic peritoneum remains to be noticed, and though I have kept it until last it is not least, but perhaps highest of all, in practical importance. This is the singular fact that by an unbroken series of mucous channels, those of the Fallopian tubes, the uterus and vagina, every female peritoneum is potentially open to the outside surface, and that through these channels it may by any septic gonorrhœal or other filth become directly affected. I cannot impress this too strongly on your notice because the happiness of many a home is often wrecked and valuable lives are lost by infectious matter introduced from without by these very channels.

The key to a proper understanding of the pelvic floor lies in an appreciation of the importance of the levatores ani or pelvic diaphragm.

The key to the understanding of the relations of several obscure tumours of the abdomen lies in the appreciation of peritoneal displacement.

And the key to certain serious inflammations of the female peritoneum lies in the fact that the channel from without, through which infection or contagion passes, may be practically open.

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SYMPHYSEOTOMY, WITH DRAINAGE PER VAGINAM OF THE  
SPATIUM PRÆVESICALE SIVE CAVUM RETZII.\*

BY PROFESSOR PAUL ZWEIFEL, M.D.

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the British Gynaecological Society.*

I HAVE chosen symphyseotomy as the subject on which, at the request of your President, I am to address you, because, since it was last discussed in our Society, the work of ten years has, we may hope, brought with it additional experience and new methods that may prove useful to others.

I need not enter on the history of the operation with which you are all acquainted, save to point out that the method seems to have disappeared from the "order of the day" in Germany, and that, not because it is, in the parliamentary sense, "a settled question," but because no one cares to hear or read anything more about it.

I have, however, selected this subject for renewed consideration on this celebration of the 500th meeting of our Society, also because a large number of our Fellows have assisted at the operation and have been eye-witnesses of its results in the Klinik under my care, the only one in Germany where it is still practised. Here, at all events, I am sure of an interested and understanding audience.

The condemnation of symphyseotomy by our colleagues in other places is of course based on unfavourable results, and the causes and prophylaxis of such results are the subject of this address.

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An address to the Leipsic Obstetrical Society (*Centralb. f. Gyn.*,  
March 29, 1902).

Looking at the tissues that are wounded in the operation, the incision through the skin of the mons veneris may be considered harmless, and the division of the superior pubic ligament, of the symphysis itself and of the ligamentum arcuatum does not involve any vessels. It is only from the clitoris, one limb of which must be lacerated in the separation of the bones, and from the pudendal plexus of veins that any bleeding takes place.

In a patient protected from infection, provided that the hæmorrhage is completely arrested, and the operation has been conducted aseptically, unless some mistake has been made the wound will heal by first intention.

The principles of treatment of wounds in the living body have so far changed that one is perhaps no longer liable to draw false conclusions and to think that some tissues, such as cartilage or the corpora cavernosa, are harder to heal than others or may do so interruptedly.

Every aseptic wound will heal unless some mistake has been made.

Now looking at the condition of the wound when the operation of symphyseotomy is completed we have: firstly, the reunited cartilage which is known to heal well; secondly, in front of the symphysis, a wound in the skin, the treatment of which certainly offers no difficulty; and lastly, the wound behind the bones affecting the spatium prævesicale or cavum Retzii. When the ossa pubis are reunited, this last wound forms a pocket, open above but closed below, in which blood and wound-secretion from the vessels and from the corpora cavernosa clitoridis may accumulate.

We are accustomed, in accordance with Lister's teaching on the treatment of wounds, to drain such places, for one of his fundamental principles was to leave no cavity without drainage for stagnant wound secretion to decompose in.

In asking "How has this pocket been treated in symphyseotomy?" a question to which the answer must be "erroneously" or "incompletely," I will not point to others, but tell you what I used to do, and what I have learned from my own experience and from that of others.



By first symphyseotomy a spouting vessel appeared lower border of the symphysis; this I secured and, as there was no more hæmorrhage, closed the wound with catgut. The course after the operation was good, but not without fever. After some days the suture behind the symphysis broke, and a surprising quantity of stinking wound secretion poured out; the temperature then fell and the patient recovered. This experience led me in every case at that time to drain the retropubic pocket by means of a tube inserted in from above, and the amount of discharge was so great that the need of such drainage was evident. In patients so treated continued to have some fever; but a certainty of treatment had been reached as is evident and must now be obtained to afford confidence in any

cases remained so for years, and though almost all cases were successful, some had prolonged fever; and this was the conclusion of the affairs in 1897 when I reported on this subject to the International Medical Congress at Moscow.\* Out of 100 patients operated on, one series of four were unsuccessful, and thirty-three children had been born. Although these general results were very good, they cannot be considered perfectly satisfactory as fever free cases had not been attained. But in the course of these years I had noticed that in several cases where an accidental communication between the anterior vaginal wound had opened a free communication between the cavum Retzii and the vagina, the course of the patients went on most satisfactorily, and that the bad impression at first conveyed by such an injury was completely obliterated by the subsequent happy, though delayed, course of the case, for in these patients, time passed, there was no fever. It seemed as if the retropubic pocket had not been kept sufficiently empty by the drainage. The idea of making such a communication intentional suggested itself, and was often discussed with my

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\* Cf. *Monats. f. Geb. u. Gyn.*, 1897, Bd. vi., p. 227.

assistants ; but the bacteriological objections that the vagina even in healthy parturients was full of pathogenic organisms continued to prevent us from trying the experiment to which our involuntary experience urged us. It seemed safer to secure complete discharge of the secretion by opening the prævesical space more freely upwards, and so I was led to use instead of a drainage tube, a wisp of gauze, and afterwards a lamp wick, and even to introduce glass tubes from above, out of which the secretion was sponged with swabs. As might have been expected from the results of the abandoned peritoneal drainage of the eighties, we found that the wound secretion could never be completely removed, and that what remained could not be saved from decomposition.

Clinically my results were not improved by the more open treatment of the upper wound, under which I had my first fatal cases (three out of forty-six operations altogether).

My own results, and the fact recorded by Abel,\* that in all women in whom the external wound healed by first intention, the power of getting about was very soon restored, and the rapidity of the "Restitutio ad integrum" was surprising, led me to abandon altogether the open treatment of the wound. I must therefore altogether withdraw the advice I gave even at Moscow recommending the wider adoption of that treatment. As I heard from Varnier in Paris last year, since the Moscow Congress Pinard had invariably inserted a drainage tube for two or three days, instead of closing the wound completely as had been his previous practice. This is an instance of the wider adoption of the open treatment of the upper wound.

These unhappy results were another proof of the principles that : Gauze does not drain but plugs, and is therefore only fit for arresting hæmorrhage or filling cavities ; on the other hand that : Drainage tubes never lead a secretion uphill but only downwards by gravity, and that any accumulation of wound secretion invariably decomposes.

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\* *Archiv. f. Gyn.*, 1899 Bd. lviii., p. 294.

The results of those unwelcome injuries of the vagina, in spite of which the course of the operation was fever free, encouraged me in spite of all theories to venture on downward drainage through the vagina in every case of symphyseotomy. There is no technical difficulty in arranging this, and the upper wound in the mons veneris is of course closed. To make the communication I chose a trocar and cannula 9 mm. in external diameter with a lumen of 8 mm., and therefore large enough to receive a drainage tube of medium size. To prevent this tube being compressed by the very contractile tissue of the vaginal wall, I drew it over a somewhat bent glass tube, 7 mm. in external diameter and 18 cm. long, and whipped it round a little rim on the glass tube, so that it should not peel off when withdrawn.

In carrying out trocar drainage through the vagina after the suture of the pubic bones, the finger is passed behind the symphysis, and under cover of it, the trocar is introduced to a spot near the urethra but free from vessels, and then pushed through the vaginal wall. The drainage tube, knotted to a thread of silk or catgut, is passed on the stilet or a loop of wire through the cannula, until the lower end of the glass tube is on a level with the lower end of the cannula, and tube and cannula are then withdrawn together, but only so far as to leave the glass tube still piercing the vaginal wall. The drainage tube is cut off at its upper end so that it reaches just behind the sutured fascia, that is to say, the ligamentum pubicum superius; and is secured in this position by a sling of silkworm gut, which, after the skin wound has been closed, is passed, but not knotted, round a bundle of gauze, so that on the fourth day the sling can be loosened and the gauze removed, and the drainage tube then shortened daily about 1 cm. as long as it lasts.

In operations such as symphyseotomy and Cæsarean section involving surgical incisions, sepsis of the genital canal is of course a source of special danger; so great in Cæsarean section as most seriously to endanger the life of the patient. Unfortunately one cannot always tell beforehand whether

infection has begun, and its presence is only disclosed by the bad odour of the liquor amnii after delivery. When the presence of fever enables us to diagnose such infection, neither operation should be undertaken, but we have met with sepsis in cases in which no symptoms preceded the operation, unless a certain inertia of the uterus should be taken as such. The question arises how one should act when drainage by the vagina is contraindicated, and yet, as has been shown, a free discharge for the wound secretion is indispensable. The vagina must then be avoided and the trocar passed through the labia. Internally these folds are composed of coarse meshed cellular tissue and by the finger may easily be hollowed out below the corpus cavernosus clitoridis on one side, and the drainage tube then introduced through or near the external surface of one of the labia majora. As yet I have only once had to choose this roundabout way; there is, however, no difficulty about it, and the question will arise whether this way may not recommend itself in the future as the one of choice, for even when labour has been quite satisfactory, putrid decomposition of the lochia may occur.

This method of drainage of the prævesical space or cavum Retzii I have now carried out in five cases, in all of which the healing has been uninterrupted. I am convinced that it is a decided improvement in symphyseotomy; that by it, so far as one can make such a statement about any operation, the patient is not only freed from any risk to life, but is given every probability of uninterrupted recovery, and a better prognosis than after Cæsarean section. That as symphyseotomy involves a surgical incision, it must always entail somewhat more risk than the so-called bloodless obstetrical operations; perforation, prophylactic version and induction of premature labour, cannot perhaps be altogether denied, but this need not have much influence in our choice, as everything depends upon perfect asepsis and the proper treatment of the wound. At Leipsic we have seen so many misfortunes from the high application of the forceps, that this proceeding does not enter the question.

Hitherto the uncertainty of the prognosis of symphyseotomy and its treacherous aftercourse have deterred obstetricians from practising it. But when one sees the quantity of secretion discharged from the prævesical space, one no longer wonders that, when that was left to stagnate, decompose and find its way into the open veins and corpora cavernosa, fever was the rule, and one recognises that compared with the treatment of the retropubic wound, all other details of the operation are unimportant.

Whether the incision in the skin be longitudinal or transverse matters no more than the particular way in which the cartilage is rejoined, always provided that this is done firmly enough and aseptically. After the drainage of the prævesical space or cavum Retzii the wound is completely closed with the exception that in the vascular tissue near the mons veneris there is a small drainage tube which is gradually shortened every day after the fourth. I do not here enter upon the arrest of blood from the corpora cavernosa, the principles upon which, after the division of the symphysis, the labour should be conducted, whether better by patience or artificial aid, nor upon the indications for the operation and other matters upon which from previous communications and your own observation you are fully instructed. I should only tell you what you already know. Moreover, I need say the less here as my experience upon the whole subject will be detailed in Hegar's "*Beiträge zur Geburshülfe und Gynæcologie*."\*

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\* Since published, Bd. vi., Hft. i.

*REVIEWS.*

UEBER EPITHELIALE GEBILDE IM MYOMETRIUM DES FOETALEN UND KINDLICHEN UTERUS EINSCHLIESSLICH DES GARTNER'SCHEN GANGES. Von Dr. ROBERT MEYER, in Berlin. Mit 36 Abbildungen im Text und auf 11 Tafeln. Royal 8vo, pp. 154. Berlin: S. Karger; London: Williams and Norgate. Price 5s.

The epithelial structures, found pathologically in the uterine musculosa of children and adults, are so much more frequently derived from portions of Gartner's duct (the remains of the Wolffian body), found physiologically in the embryo and infant, than from any other source, that Meyer devotes about half of his book to discussing the course and ramification of this duct in the foetal uterus, the variations in its lumen, its epithelium and glandular structure, its muscular and connective tissue coats, and its abnormalities, without an accurate knowledge of which he deems it impossible rightly to recognise and appreciate epithelial structures of other origin, and to differentiate them from remains of this duct.

In the identification of Gartner's duct, Meyer lays most stress on the presence of prolongations of the ramifying pouches, more especially of the spiral tubules in which the wider straight prolongations often end; on the single layer of epithelium, the height of which in the branches is proportionate to their lumen; and on the heaping up of the connective tissue about the main duct and its absence round the branches. The muscular tissue is not characteristic, and cubical epithelium in children, in whom the cervical cells may not have acquired the adult type, does not necessarily exclude displacement of cells from the cervical mucosa.

Remnants of Gartner's duct may be found in the lateral walls of the cervix, and even in the lateral portions of the anterior and posterior walls. Meyer met with none in any foetus more than 4 cm. long, though Nagel has reported such in one of 20 cm.

Meyer shows that congenital epithelial inclusions (dys-topia) which may be attributed to other epithelial structures in the immediate neighbourhood of the uterus at some period in the course of its development, occur with comparative frequency, but that they offer, in the earlier stages of foetal life, little evidence of their origin. He points out that germinal aberration, an error of the primary layers, due to superfluous germs of a tissue or organ, either in connection with or separated from the normal seat of that organ, may be primary, a superfluous or supernumerary plantation of a tissue (or organ) out of place, or secondary, a displacement of a tissue (or organ) after differentiation.

The possible sources of epithelial inclusions in the myometrium are Mueller's ducts themselves, the Wolffian duct, the primordial kidney, the epoöphoron and paroöphoron, the ovarian epithelium and that of the peritoneum; in fact, those sources of epithelial cells which are by experienced investigators given most theoretical importance in the genesis of adenomyoma. The urachus, ureters and intestine are not so closely associated with the uterus in the course of its development, and aberrations of epithelium into the myometrium from these organs are extremely improbable; nor can the ectoderm lead to such save in very exceptional cases; on the other hand it is quite likely that epithelium from the primordial kidney or from the ovary may be secondarily included in early invaginations on the serous investment of the uterus, for there is no doubt that the serous epithelium may form glandular depressions, which later may become intraserous and subserous glands and cysts. The epithelium of such glands is always somewhat poor, and the cells composing it should rather be termed epithelioid, but Meyer is convinced that such glands may become the "crystallisation point" of small myomata.

Remnants of Gartner's ducts were found in the foetus of from two to three months' development, in eleven cases; in those of from four to six months, in six cases; in those of from seven to nine months, in eleven cases; and in the new born in three instances. Associated with such he met with cysts in the muscular tissue of the rectum, urethral epithelium in the broad ligament, and squamous vaginal epithelium in the muscosa of the neck of the bladder. In two instances only did he discover any remains of the ectoderm in the broad ligament. Thickenings of the peritoneal epithelium, invaginations of the same into the broad ligament or uterus, and proliferations of germinal epithelium in the ovarian ligament were repeatedly met with; accessory adrenals were very common. Wolff's duct or cysts of it were also common in the broad ligament or in the parametrium. Cysts in the lateral parts of the broad ligament are generally to be referred to the proximal end of the epoöphoron; epoöphoron cysts nearer the middle line are rare, but are sometimes met with in the meso-ovarium or hilum ovarii; medullary cords, prolongations of the epoöphoron tubules, are there a physiological condition. The cysts which physiologically occur in the ovaries of the older foetus and in children, are always to be referred to follicles. Some such, from their enormous size, or from hæmatoma, must be considered morbid.

The paroöphoron is mostly well preserved in early foetal life, and up to the fourth month it is common to find considerable remains of it; in the older foetus the remains are rare and unimportant; there is, however, scope for further investigation of the outside portions of the ligamenta lata and of the pelvic wall. In the wall of the tubal ampulla epoöphoron tubules were found in two instances, and in one a cyst derived from the tubal mucosa. Cysts from the cervical mucosa were several times met with in the membrane itself, and once apart from it.

In the corpus u. mucous glands were no rarity in the older foetus, as was formerly supposed; they appeared in



some instances as early as the seventh month, and sometimes extended very deeply into the uterine wall. Aberrations from such glands undoubtedly occur. All derivatives from mucous membrane are not to be looked upon as displaced glands; some are to be attributed to such irregularities of Mueller's ducts as were repeatedly found at the point of their union.

Of the dystopia of Wolff's duct, the theoretical possibility of which Meyer has proved in adults, no evidence was found in children.

Finally, structures were found in the uterus which, from their remote position and their unlikeness to mucous epithelium, could not have originated from such, and of which, after the exclusion of Wolff's duct, the most probable origin seems to have been the primordial kidney. In one instance a solid accumulation of cells which closely resembled epithelium was found in the tubal corner of the uterus.

The work may be looked upon as the most important hitherto published on this particular subject, as it is based upon the examination of series of sections of 100 foetal and eighteen infantile uteri, a larger material than has been previously submitted to such careful research.

EXPERIMENTELLE UND KRITISCHE BEITRAEGE 'ZUR HAENDEDESINFECTIONSFRAGE. Von Dr. RICHARD SCHAEFFER, Frauenarzt in Berlin. Mit 12 tabellen und 4 abbildungen auf 2 tafeln. Royal 8vo, pp. 110. Berlin: S. Karger, 1902. Preis 3.50 mks.

The question in the title of this book, shortly stated, is: Can we by any process make our hands as perfectly free from germs as we are able to make our instruments? While this is distinctly negatived, Schaeffer is no pessimist, but insists that with hot water, soap, and alcohol, an operator can so reduce the number of germs on the skin of his hands that the danger of their being a source of infection is practically nil, and not more than that ordinarily present in the atmosphere.

The author, whose paper on "Asepsis in Laparotomy"

gave rise to an animated discussion on the subject at the Berlin Medical Society in 1898, reviews the various sources of error which may lead to false deductions from experiment, and gives the results of his own researches upon the effects of antiseptica (sublimite and ethylendiamin of mercury, lysol, lysoform, and chinosol) upon the germs of hands previously inoculated and otherwise. He concludes that Miculicz' soap-spirit method is the only one at all approaching hot water washing and alcohol in efficiency. He recommends brushing with soap and water at a temperature as hot as can be borne ( $122^{\circ}$  F.) for ten minutes, the water being changed three times, followed by rinsing in sterile running water, and by washing with fresh sterile brushes and alcohol in a sterile basin for five minutes, or at the least for three; it is better to change the alcohol, and finally to wash off the infected alcohol by bathing the hands in some reliable sterile fluid, say a 1:1,000 sublimite solution. The permanganate and chlorinated soda methods are not considered.

HÉMORRHAGIES UTERINES, Indications et Contre-Indications de leur Traitement électrique; Action Excito-Motrice de l'Electricité. Par Dr. A. ZIMMERN, Ancien Interne des Hôpitaux de Paris. Crown 8vo, pp. 254. Paris: Baillière et Fils, 1901. Prix 8 fr.

At the Broca Hospital, Professor Pozzi is somewhat sceptical as to the alleged efficacy of electricity, except, perhaps, in controlling hæmorrhage; Dr. Zimmern, whose name will be familiar to most of our readers in connection with his important articles in the *Revue de Gynécologie et de Chirurgie Abdominale*, 1900, upon the treatment of fibromata by electricity, has, as director of the electrotherapeutical department there, had, in the course of about eighteen months, the opportunity of treating thirty-six women for various forms of menorrhagia. Among these there were no cases of sepsis after labour or abortion, pelvic suppuration, ovarian tumours, large or rapidly growing fibromata, or cancer. Fourteen of the thirty-six patients ceased attendance or were lost sight

of, but among the twenty-two in whom the treatment was carried out and who were kept under observation, he was happy in having only one failure and two or three uncertain cures.

He concludes that while electricity is absolutely contra-indicated in bleeding due to retention after labour or abortion, and in acute, subacute, and suppurating lesions of the adnexa, it is useful in the hæmorrhage met with in genital affections of a congestive nature, where the use of the curette or caustics may be harmful; that electric treatment is the best palliative in bleeding due to fibromata, and the elective method of dealing with that caused by aseptic subinvolution; that in recent endometritis it ought to be preferred to the curette, because it requires no anæsthetic or rest in bed, and is seldom followed by recurrence; moreover, its action is more easily localised than ordinary caustic applications and perhaps less dangerous, and its trophic effect on the muscular tissue favours contractility and so the regulation of the supply of blood. In old, fungous, or polypous endometritis, curettage is the better treatment.

The book merits much praise. The first part is devoted to the etiology and pathogenesis of uterine hæmorrhage; in the second, in which his own observations are recorded with evident candour and accurate detail, he discusses the indications and contraindications for electricity; and in the third, the physiology of electricity, with the results of some experiments made in Professor Raymond's laboratory. The technique of electric methods is added in the appendix.

**HÆMATOMÉTRIE ET HÆMATOCOLPOS** dans les cas de Duplicité du Canal Genital. Par le Dr. G. GROSS, Ancien Interne des Hôpitaux de Nancy, Lauréat de la Faculté (Prix de l'Internat, 1898-1899). 1 Vol., gr. in-8 de 281 pages avec 26 figures. Paris: Baillière et Fils, 1901. Prix 5 fr.

This monograph, with the form and some of the drawbacks of a thesis, is based on one personal and 77 collected

cases, to the details of which nearly half its bulk is devoted. Four more are added in an appendix. They are classed as simple lateral hæmatometra, 47; partial hæmato-colpo-metra, 4; total hæmato-colpo-metra, 23; and simple hæmatocolpos, 4. Among those in which the ultimate result is recorded, 15 deaths occurred in 36 before 1880, and only 3 in 32 after that date, while no case was fatal after 1887, a diminution in the mortality to be attributed to the introduction of anti-septic surgery. The earlier part of the work is taken up with the consideration of the deformities due to deficient or arrested development of the genital canal and the causes of atresia, two conditions which, as well as menstruation, must be present in all cases comprised in the title. Such a large proportion of atresia are congenital that we need feel no surprise to find retention of the menses associated with deformity of the genital canal; in four of the twelve cases recorded by Mr. Christopher Martin (*ante*, vol. xvii, pp. 228-248) the uterus was duplex, in two the vagina also, and in another there was a uterus bicornis. The accidents, complications, and treatment recommended by Dr. Gross are practically identical with those in Mr. Martin's paper. The work is a careful and creditable study of its kind.

LE CANCER DU SEIN. Étude Clinique Statistique par A. LE DENTU, Professeur de Clinique Chirurgicale à la Faculté de Médecine, Chirurgien de l'Hôpital Necker. Membre de l'Académie de Médecine. Avec 8 figures intercalées dans le texte. Baillière et Fils, Paris, 1902.

Our distinguished French colleague, the Editor, with Professor Delbet, of the *Traité de Chirurgie Clinique and Opérative*, gives in this work the results of his operations for mammary cancer in private practice. His method has successively extended from amputation of the breast, as so understood twenty-five years ago, without evacuation of the axilla unless the glands were sensibly swollen, to clearing out the armpit, then to ablation of the aponeurosis of the pectoralis major, then to taking away also the subaponeurotic layer

of that muscle, and finally to systematic resection of its clavicular head, a proceeding formerly only done when indispensable. It has thus been only by degrees that he has come to adopt one of the fundamental principles of Halsted's method. He has been led to publish his results by his conviction that, though in the treatment of malignant disease of the breast there are still more disappointments than cures, material improvement has been brought about by the gradual extension of the operation, and in the hope that by the recognition of this fact, early and wide exeresis may become the rule in the treatment of this, one of the most prevalent forms of cancer.

VADE-MECUM D'OBSTÉTRIQUE ET GYNÉCOLOGIE DES MÉDECINS-PRACTICIENS. Par le Docteur HENRI FISCHER. Fcap. 8vo, pp. 322. Paris: L. Boyer, 1902. Price 4.50 francs.

This little volume is one of several handbooks by the same author. In regard to obstetrics he does not aim at giving more than a description of the instruments required and the indications, foetal and maternal, for approved methods of intervention, believing that, to the practitioner, rules for operation, elastic enough to meet all cases, yet precise enough to prevent hesitation, are more important than pathology. Gynæcology occupies nearly two-thirds of the book, and the excellent style of the writing, free from all trace of prolixity, the omission of pathological description and of all controversial matter, or even alternative methods, has enabled the author to give a synopsis of gynæcological treatment that is at once concise and comprehensive. Some of the American Medical Schools not only insist that their students should have a fair reading knowledge of French and German, but encourage them to use one or two manuals to familiarise themselves with medical phraseology of these languages; for such a purpose this little book would suit admirably. We are, however, promised an English translation of it in October.

**ESSENTIALS OF OBSTETRICS.** By CHARLES JEWETT, A.M., M.D., Sc.D., Professor of Obstetrics and Gynæcology in the Long Island College Hospital, &c., &c., assisted by HAROLD F. JEWETT, M.D. Second Edition, illustrated by 80 woodcuts and 5 coloured plates. Crown 8vo, pp. 386. London: Henry Kimpton, 1902.

The acquisition of a complete and systematic knowledge of any branch of medicine is greatly facilitated by mastering its essential facts and principles at the very beginning, and the student of obstetrics will find in this excellent little book a safe and intelligible guide to the didactic and practical teaching of his medical school, and an admirable introduction to the study of more systematic treatises. The necessary facts are conveyed in clear and precise language, and are not overloaded with detail; the illustrations are evidently carefully selected, and diagrams have been freely used where they are calculated to elucidate the text better than drawings. The matter is well arranged, and printed so as to facilitate reference and make prominent what is important. We can heartily recommend the work as being what it is claimed to be.

**A TEXT-BOOK OF PRACTICAL OBSTETRICS.** By EGBERT H. GRANDIN, M.D., Gynæcologist to the Columbus Hospital; Consulting Gynæcologist to the French Hospital; late Consulting Obstetric Surgeon of the New York Maternity Hospital, &c., &c.; with the collaboration of GEORGE W. JARMAN, M.D., Gynæcologist to the Cancer Hospital; Instructor in Gynæcology in the Medical Department of the Columbia University; late Obstetric Surgeon to the New York Maternity Hospital, &c., &c. Third Edition, revised and enlarged, with 52 full-page photographic plates and 105 illustrations in the text. Royal 8vo, pp. xxiv. and 512. London: Henry Kimpton, 1901. Price 18s.

As it is only some six years since the first edition of this work appeared, it has no doubt found a wide acceptance. It is now enlarged by the addition of a chapter on the

**Anatomy of the Female Organs of Generation and Embryology.** The book is well arranged and contains much sound information; as is right in a text-book, facts and accepted theories and methods are given, and when differences of opinion exist, that view for which there is preponderating authority. The best part of the work is that on Obstetric Operations, and no fault can be found with the precepts it enforces as to asepsis. But there are omissions which can hardly be explained; there is, for example, no account of the treatment of abortion impending or in progress, though this accident is mentioned in the differential diagnosis of ectopic gestation.

The authors have omitted many time-honoured woodcuts as teaching nothing that cannot be learned to better advantage at the bedside. For the same reason a large proportion of the full-page plates might have well been dispensed with. The book has been said to contain all the essentials of a standard work of reference, but the index is a very poor one, and we can hardly admit that it is "positively the best book on obstetrics," even among those published in America.

**THE STUDENT'S MANUAL OF VENEREAL DISEASES.** By F. R. STURGIS, M.D., sometime Clinical Professor of Venereal Diseases in the Medical Department of the University of the City of New York, &c., &c. Seventh Edition, revised and in part rewritten by F. R. STURGIS, M.D., and FOLLEN CABOT, M.D., Instructor in Genito-Urinary and Venereal Diseases in the Cornell University Medical College, &c., &c. Demy 8vo, pp. xii. and 216. London: Rebman, Ltd. Price 6s.

This manual is partly in the form of clinical lectures, and throughout the authors, clear and precise in their statements, confine themselves to the description of such phenomena of venereal disease as are usually met with, and do not digress on obscure points or matters not yet proven.

They object to the terms "secondary" and "tertiary," since these terms imply a chronological sequence which is

not constant, and they prefer to classify the various manifestations of primary syphilis as the "superficial lesions" and the "deep lesions." They give, however, a nomenclature for some of these manifestations which we think is unnecessary as tending rather to confuse the student. Some of the new appellations also are rather awkward, for example, the "pustulocrustaceous syphilide" does not appeal to us as being so convenient a term as the time-honoured "rupia," although it may describe more accurately the appearance of the lesion. They clearly enumerate, however, the current synonyms for their proposed appellations. Apart, however, from nomenclature, no fault is to be found with the description of the various secondary or "superficial" lesions; that of the different varieties of venereal sore is good. The discussion on the points of differential diagnosis between the latter is clear and to the point, and will prove of great help not only to the student but to the practitioner. A useful tabular view of these differential points is added.

The chapters on treatment contain useful information and numerous formulæ are provided. Cauterisation as a routine practice for the simple sore or chancroid is, we think, unnecessarily severe, and in our experience the majority of such sores yield to much milder methods of treatment. The necessity for using large quantities of iodide of potassium in some cases is insisted upon, the authors giving sometimes 180 grains and more daily until improvement results; the patients are of course kept under strict observation during the exhibition of such large doses. We have not tried the authors' method of approaching peri-urethral abscesses from the interior of the urethra, but would think that healing would be slower than by the more usual method of opening them externally, and also that, to an inexperienced operator, the method would not be devoid of difficulty.

We commend this manual not only to the student of venereal diseases, but also to the practitioner, as being a concise and sound exposition of the essential points in the diagnosis and treatment of the various forms of disorders.



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THURSDAY, JULY 10, 1902.

DR. HEYWOOD SMITH, A VICE-PRESIDENT, IN THE CHAIR.

THREE CASES OF VAGINAL AND ONE OF ABDOMINAL  
HYSTERECTOMY, WITH SPECIMENS. By F. A. PUR-  
CELL, M.D., Surgeon to the Cancer Hospital.

CASE 1.—*Uterus Removed by Vaginal Hysterectomy, showing a Carcinoma of Corpus Uteri in an Early Stage.*—The patient was a widow, aged 54, a healthy woman, who had had no children and no miscarriages; she passed the menopause some three years ago. Her menstruation had been regular, but with pain during flow and occasional leucorrhœa. About a year ago she noticed a slight discharge, occasionally purulent and foetid. When walking about she sometimes felt a pain as if cut by a knife. The last three months she had had a discharge of blood, as if from a slight period.

*Condition on admission.*—External genitals normal. Vaginal wall smooth, except just inside on the right, where arunculæ were rather indurated and tender. Capacity of vagina small. Uterus to the front mobile, not apparently enlarged. Cervix sessile and almost flush with vaginal roof.

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Cervix nulliparous. Fornices normal. On March 5, 1902, the uterus was curetted and the scrapings were sent to be examined microscopically by Mr. H. J. Plimmer, who reported that the specimen was from a case of carcinoma of the endometrium, and on this report the patient was advised to have the uterus removed. On April 2 I extirpated the uterus *per vaginam*. The vagina was very narrow, which increased the difficulty of the operation. The patient made an uneventful recovery.

On section, some blood clot lay along the cavity of the uterus; the section showed a small fibromyoma lodged in the muscular structure of the neck of the uterus. No definite opinion as to the malignancy of the specimen could be obtained from Mr. Plimmer. He wrote, "I have taken some pieces, but it is spoilt as a specimen by being put into strong spirit. At any rate it will be no good for a permanent preparation."

This certainly leaves the case rather undefined.

CASE 2 is that of a uterus which had expelled a round polypus, about the size of a very small tangerine orange, attached by a pedicle to the posterior wall of the body of the uterus. To remove the pedicle the patient was placed under an anæsthetic, and the uterus was under process of dilatation; when No. 9 of Hegar's dilators was being introduced it suddenly slipped and perforated the fundus, so that its end could be felt through the abdominal wall. Vaginal hysterectomy was then performed, and the patient made an uneventful recovery. On the evening following after the operation the patient managed to secrete an orange, which she ate, and during the temporary absence of the nurse from the ward left her bed, and threw the peel in the fireplace. She got back to bed just as the nurse returned, some of her dressings being found at the fireplace. In spite of this the patient had no sickness or hæmorrhage. She was a healthy woman, aged 52, who had had no illnesses, nine children, two miscarriages, her last pregnancy six years ago ending in a miscarriage at the third month. She had had

several floodings since, coming on suddenly with a lot of clots. A large flattened polypus was found in the vagina, the pedicle, long and thin, coming out of the cervix uteri. The tumour was soft and fleshy, red, and ulcerated in places, the cervix dilated. This is the case I alluded to when Dr. H. Macnaughton-Jones showed Professor Bossi's instrument which he had used for dilating the cervix in a case of albuminuria of a seventh month gestation.

CASE 3.—The third specimen was a malignant uterus removed by vaginal hysterectomy. The diseased os and neck were very much enlarged and filled up the vagina. The operation was difficult, and the adhesions of the bladder were extensive. A blood clot presented in Douglas' pouch, which was scooped out and cleaned. Eventually the uterus was removed, but the ovaries were allowed to remain. All vessels were tied with silk, the ends of which were left long. The vagina, after being gently douched and cleaned, was plugged fairly tight with iodoform gauze, for the first dressing, and a self-retaining rubber catheter was passed up into the bladder. The patient made an uneventful recovery, and the tear in the bladder healed up satisfactorily.

CASE 4.—The fourth specimen of multiple fibroids of the uterus was removed by abdominal coeliotomy from a married woman, aged 47, admitted into the Cancer Hospital, March 11, 1902. The patient had never been very strong, had suffered from dyspepsia for a long time some years ago, and had had enteric fever. No children. Menstruation began at thirteen years, a three-week period, the flow fairly copious, lasting from eight to ten days, no pain. Eight years ago she was in the Cancer Hospital, suffered from constant vomiting, no blood, constipated; she had hæmorrhoids which bled occasionally.

Two years ago she began to suffer from a dragging pain in her right side, and then noticed a lump in the right iliac region; the mass varied in position. There had been no alteration in her periods. On the right arm and leg she had fibrous tumours, which gave her no inconvenience.

*Abdomen.*—There was some tenderness in right lumbar region, but the kidney could not be palpated. A thickening, as of glands, could be felt along the right Poupart's ligament. There was a feeling of resistance in hypogastrium. Percussion was tympanitic all over, but owing to the extreme nervous temperament of patient, a satisfactory examination could not be made.

The vagina was narrow, barely admitting two fingers; the cervix scarcely to be felt; in the anterior fornix there was some resistance apparently connected with uterus.

When the abdomen had been opened, slightly to the side of the middle line, the condition was found to be a fibroid uterus. The ovaries were also fibrous.

The tumour mass was elevated with a myoma screw and delivered, the broad ligaments on each side were ligatured and divided, and the ovaries were then removed. A peritoneal flap was made anteriorly and posteriorly, the uterus amputated through the cervix, and the peritoneum was sewn together with catgut. The abdomen was closed in layers with interrupted catgut sutures. The patient made an uneventful recovery.

Dr. HEYWOOD SMITH pointed out that the opinion of the pathologist that the scrapings of the endometrium indicated malignancy had not been confirmed after the operation, and to the naked eye the tumour appeared to be an ordinary submucous fibroid assuming the polypoid form. There was a question whether there was any malignant disease or not, and if not, though, as the vagina was a small one, the operation might have been difficult, the tumour might have been enucleated and the uterus preserved. It would be interesting to know whether the curette had passed beyond the tumour and up to the fundus or not.

Dr. ROUTH attached much importance to the caruncle of the vagina being indurated, as an early indication of malignant disease higher up; if that hardness was well marked it would seem very probable that the present case was really one of malignant nature.

Dr. J. J. MACAN thought the specimen especially interesting in connection with the one he had the honour to show for the President at the last meeting. But he gathered from Dr. Purcell's report that there was no possible course open to him except to remove the uterus, as the scrapings were pronounced by an expert pathologist to be malignant. Indeed, as the woman was 54 years of age, there was no reason for trying to save the uterus if there was the faintest possibility of it being malignant.

Dr. PURCELL agreed that where, as in the case before them, the carunculæ were hard and tender, the presence of some malignancy higher up was indicated, and upon that evidence and the report upon the scrapings of the curette he had no alternative but to remove the uterus. He was quite sure that he had obtained some endometrium from above, as well as from below, the fibroid, and that the curette had reached the fundus.

Dr. HEYWOOD SMITH (the Chairman) said, in regard to the second specimen, in which the uterus had been perforated, that the fact that the woman had had nine children beside miscarriages, was of importance, as so many pregnancies were likely to weaken the uterine contractile tissue and increase the liability to perforation. Great care and very little pressure should be used in passing a sound into a uterus which had borne many children. It would be desirable for the Fellows present to give any experience they had had of perforation of the uterus; no doubt it occurred much oftener than was recorded. He had himself in one case felt the sound through the abdominal wall; Dr. Meadows, a good many years ago, had a case at the Hospital for Women in which the sound was passed through the fundus; no harm happened beyond temporary pain, and neither patient was materially inconvenienced by the accident.

Dr. ROUTH had heard of many instances of perforation of the uterus; it had occurred twice in his own practice, but no bad effects followed. A late colleague of his had met with the same accident, and the patient died. He thought

the new methods of dilatation not free from danger, though more rapid than the old-fashioned one. At the same time he had not heard of a single death due to dilatation, and in the hands of those with very large experience, like Dr. Purcell, it was a different matter from the same proceeding in those of an unskilled person, but it was a question whether it would not be better for the gynæcologist not to be so careful of his time and continue the old plan of dilatation by tents.

Dr. MACNAUGHTON-JONES said he would like to know from Dr. Purcell if the dilatation had been gradual. He disliked the term "forcible," as applied to dilatation, as force was just what should be avoided in carrying it out. The method of dilatation was frequently indicated by the nature of the uterus we had to dilate. In the instance of a soft cervix with a patulous canal and a yielding isthmus, gradual dilatation by any form of bougie was generally easily effected, but in other cases he much preferred the plan of using an antiseptic laminaria tent beforehand, taking it straight from ether and iodoform, and subsequently—say within the twenty-four hours—completing the dilatation by some form of dilator. The tent usually enabled us readily to dilate the cervix to the circumference of the little finger before passing larger instruments. Again, the degree of dilatation depended upon the object. In some cases it was not necessary to dilate to the full extent, as exploration by the finger was not required. He had never had any accident from dilatation by any method. Neither had he had any accident with the uterine sound. On two occasions, the sound had passed out of the uterine cavity. He had recorded this fact, but it was due to the presence of an enlarged uterine orifice of the Fallopian tube, into which the sound passed. This was the condition to which Matthews Duncan had drawn attention in explanation of the sound passing into the abdominal cavity in certain cases without perforation of the uterus. There was neither pain nor shock. The readiness with which the uterus could be perforated by the sound depended upon the nature

of the uterine structures. All were familiar with a condition in which the uterus was frequently elongated, and in which the wall was exceptionally thin and soft, or some degenerative change had taken place. Here the greatest caution had to be observed or the sound might very easily be pushed through the uterine parietes, and the same might be said of any form of dilator. On the other hand, in a normal uterus or one with hypertrophied walls, such risk was not present. A serious question might arise as regards the responsibility of a surgeon perforating the uterus with a sound or dilator. With proper caution it was not an accident which was likely to occur save under exceptional conditions. Given a normal uterus such an accident, he was afraid, would be attributed to some rashness on the part of the surgeon, but not otherwise. It could be easily understood how a sound that was aseptic might penetrate the uterus and do but little damage. It would be different if it carried any septic material into the peritoneal cavity, and therefore the risk must, in a certain degree, depend upon the condition of the uterine canal, as the principal danger would arise from septic peritonitis.

Dr. HERBERT SNOW reminded the Fellows that Lawson Tait, one of their late Presidents, was the first to call attention to the rather frequent passage of the sound through the uterine wall without any bad results, and in his book on abdominal surgery mentioned a number of cases of the kind. If the sound or dilator were sterile no harm was in the least likely to happen. Dr. Purcell might remember some ten years ago, when assisting him (Dr. Snow) to perform a ventral fixation, and at his request pushing up the uterus with a sound, the instrument passed through the wall and made its appearance below the umbilicus. It was withdrawn, the operation was proceeded with and no ill-effects whatever followed. A milder method of treatment might have answered in the present case, as in instances of rupture of the uterus in labour; the pedicle might have been removed and a gauze packing inserted.

Dr. PURCELL, in reply, said that as the uterus had already

expelled the polypus he had no hesitation in dilating to remove the pedicle. He had reason to suppose the pedicle to have become twisted and to be in a sloughing condition, and it could not safely be left in the cavity. If an aseptic sound passed through a healthy uterine wall, as in the case Dr. Snow had referred to, naturally no harm would result. Though he had dilated very many uteri, he had not seen many cases of perforation, and some years ago he might not have attempted vaginal hysterectomy, but have simply inserted a gauze plug for drainage. He did not know whether the uterus in this case was malignant or not, but there was a sloughing polypus outside, and the pedicle was in the cavity; it was clear that the uterus could not be considered aseptic, and therefore he performed hysterectomy. He was sure that all the Fellows agreed with Dr. Routh as to the use of tents, at all events for preliminary dilatation. In this case the os was patent; he had dilated very gradually, commencing with No. 1; there was no difficulty in introducing the early numbers, and it was No. 9 that went through the wall with the application of very little pressure. It was owing to what Dr. Macnaughton-Jones had told them when exhibiting Professor Bossi's very ingenious instrument that he had brought the case forward, as he thought that by that instrument, after preliminary dilatation by a tent, the cervix in this case might have been dilated to the required extent without accident.

**SUPPURATING OVARIAN CYSTOMA COMPLICATING MIS-CARRIAGE DURING THE THIRD MONTH—OPERATION—RECOVERY. By H. MACNAUGHTON-JONES, M.D., &c**

The complication of a suppurating ovarian cystoma with pregnancy, though not of frequent occurrence, is occasionally met with. The suppuration is, however, more frequently attendant upon, or a sequel of, labour. A few years since I brought a case before the Obstetrical Society of London in which, some time after parturition, I removed an enormous quantity of pus from a cyst which had contracted extensive peritoneal and bowel adhesions, the patient making an



admirable recovery. It is difficult to say why suppuration should occur more frequently in such cases than in uncomplicated ovarian cystoma. The condition of the blood in pregnancy may predispose to its occurrence. Pressure on the cyst and infection from the bowel may also tend to bring it about. In the present case there was no suspicion that the cause was ovarian until I saw the patient shortly before I operated. The case is interesting as having happened after a miscarriage about the fifteenth week of pregnancy.

On the evening of April 25 I was called in consultation to a patient who was dangerously ill, with the following history and symptoms. She was a primipara, aged 35. There was a previous history of some lung trouble, and also of pelvic pain. On April 9 she had miscarried and, according to the report I was given, the ovum and membranes had come away entire. There were no symptoms until April 20, when she first complained of pain. Vomiting set in on the 23rd, and on the 24th there was great pain and difficulty in micturition. The vomiting continuing, and the temperature reaching  $104^{\circ}$ , and the pulse becoming feeble, I saw her. I found the abdomen generally swollen, tender to the touch, with a dull suprapubic area and attendant hardness. By vaginal examination I found the uterus fixed, the os uteri not patulous, and a considerable swelling in the utero-vesical space. There was no discharge. Her temperature had fallen to a little over the hundred, and her pulse was ninety. Ice was applied to the hypogastrium, and the quinine and opium she had been taking were continued. On the 26th she was in much the same state, the abdominal tenderness was diminished, there was very little sickness, but the hypogastric swelling had increased. On the 27th the evening temperature reached  $102.4^{\circ}$ , there was further abdominal swelling, but very little distress and no vomiting. The pulse had risen to 120. The question of abdominal interference arising, she was seen with me by Dr. William Duncan on the 28th, and we both took the view that it was a case of extensive cellulitis with some associated peritonitis following upon the

miscarriage, and that at the moment there was no adequate indication for interference. On the 29th she was no better, and on the 30th, when I saw her, I found the vaginal swelling softer, and I thought I could detect some fluctuation. I accordingly determined, having first explored, to perform colpotomy on the following day, but prepared, if necessary, to open the abdomen. This was on the twenty-third day after the miscarriage, and the eleventh from the onset of her symptoms. After careful preparation of the vagina the uterus was dilated and explored, and nothing discovered. Under the anæsthetic I came to the conclusion that I could not satisfactorily reach any abscess by the vagina, and that the best course to pursue was to perform coeliotomy. On opening the abdomen I found a cyst reaching almost to the umbilicus, and greatly distended. There were extensive adhesions all round the cyst wall, and some bowel and peritoneal adhesions. The breaking down of these caused considerable bleeding, and during the manipulation the cyst burst, discharging a quantity of pus. The cyst, which grew from the left side, was removed; the abdomen was flushed out with formalin solution, and then thoroughly sponged out with the same, before closure with through and through abdominal sutures. She progressed fairly for the first forty-eight hours, but on May 4 she became delirious, her pulse increased to 140, and her temperature remained at 101° and over. Her condition was so bad that, as she was for several hours unconscious, it was thought useless for me to visit her. The bowel, however, responded well to an enema, and the respirations did not increase. She was given subcutaneous injections of strychnine at intervals, and nutrient enemata. On the night of the 5th she became again conscious, and still further rallied on the 6th, and though the subsequent course of her case was precarious, the temperature range showed nothing strikingly abnormal from May 14 forwards. When I saw her after a considerable interval, on June 16 she had been up for some time, and was about to be removed for change of air. She has recovered perfectly.

The case is instructive, not only from the ætiological point of view, but also from that of diagnosis. It is not improbable that in some of these cases old pelvic diseased conditions, dormant during pregnancy, may be roused into activity by labour and the puerperal state, and cause infection of a simple cystoma.

In this case there did not appear to be anything wrong with the right adnexa. The mistake of looking upon the case as one of pelvic peritonitis with cellulitis was excusable under the circumstances, the uterus itself not being much enlarged though fixed, and the supra-pubic area of dulness well localised. It is an instance of what I believe to be a safe rule (not without its exceptions) that in cases of doubt, when we have combined abdominal and pelvic signs, and when we are uncertain of being able to deal successfully with the case by colpotomy, to open the abdomen at once. Had I successfully explored this case as I intended to do with the trocar and branched dilator, I should in all probability, with disastrous consequences, have come to the conclusion that I had evacuated the pus from a large pelvic abscess.

Dr. SNOW asked what was the strength of the formalin solution used, and what Dr. Macnaughton-Jones' experience had been as to the effects of formalin on the peritoneum. It had generally been considered a mistake to use any irritant in the abdominal cavity from fear of damaging the secretory and excretory powers of the peritoneum.

Dr. PURCELL said the case was instructive as an example that in attempting to open a pelvic abscess one must always be prepared to perform coeliotomy. So also in regard to vaginal hysterectomy; he had seen a large ovarian cyst removed, after the uterus, by the vagina, and pyosalpinx taken away with the uterus, but complications were met with, and it was sometimes necessary to do the double operation. If there was any difficulty from adhesions or thickening in removing a uterus by the vagina, it was better to open the abdomen and see what one was doing. He was in the habit of using douches of formalin in a solution of 1 in 2,000.

Dr. MACNAUGHTON-JONES, junr., said, that with the exception of hydrogen peroxide, formalin was the least irritating of all the antiseptics in use; without any untoward effects it might be injected into the veins in sufficient strength to destroy tubercle bacilli in the blood. Its effect on the peritoneal cavity was therefore not likely to be injurious, nor, practically, had it been found so.

Dr. MACNAUGHTON-JONES, in replying, said that the uterus, as he had stated, was fixed. There was no question of diagnosis, except that of pelvic suppuration, which was negatived by the discovery of the ovarian cystoma. The case was a very puzzling one, as there was no indication whatever of any uterine complication, all the products of gestation had completely come away, and the gradually increasing swelling closely resembled the spread of perimetritic inflammation. With regard to the question of formalin, he had for some years been in the habit of using it constantly in solutions of from 1 in 2,000 to 1 in 10,000 for a variety of purposes, and had never had the least ill effect from it. Used in proper strength he believed it to be the most perfect and harmless antiseptic we could employ.

TUBES AND CYSTIC OVARIES FROM A RUDIMENTARY UTERUS: SECONDARY GROWTH FROM THE ABDOMINAL CICATRIX AFTER HYSTERECTOMY. By R. D. PUREFOY, M.D., &c., Master of the Rotunda Hospital

In the unavoidable absence of Dr. Purefoy, the following notes were, by his request, read by Dr. MACNAUGHTON-JONES, junr.:—

The first specimen was removed from a single woman, aged 23, one of a family of eight children, all healthy; she had had no severe illness in childhood, or since. At 16 she began to suffer at intervals of two, or three, months from severe pain in her left side and back, accompanied by headache and vomiting on first day. The pain in the left side sometimes extended down the left leg as far as the foot, and rigors commonly occurred once during such attack. These attacks rendered her incapable of any useful

exertion and she therefore came under my care about three weeks ago. She was a tall, well-made, and well-nourished young woman, and had never menstruated, though the breasts and external genitals were normal in size and appearance. On separating the labia, the hymen was observed to be imperforate, and further examination showed that there was no vagina; the uterus was represented by a small solid body about one inch in length and a quarter of an inch in diameter; and on each side a large cystic ovary could be easily felt. The removal of these appeared to be the most rational treatment, and this I did a week ago, the patient being now quite convalescent. On the left side the tube bore the usual relation to the ovary at its fimbriated extremity; at its uterine end it became gradually smaller and more attenuated till it was lost in the fold of peritoneum which extended across the pelvis to the right side, where the abortive uterus was found, and, springing from its cornu, the right tube, much smaller than usual, and closely related to the corresponding ovary, which, like the left, was considerably enlarged and thickly studded with small cysts. I believe such a coincidence of normal and abnormal conditions in the utero-ovarian system is uncommon. Interesting questions are suggested by the clinical fact that, though the ovaries are so similar, pain was referred only to the left, and by the rigors and rise of temperature ( $1\frac{1}{2}^{\circ}$ ) which attended the menstrual molimen.

The second specimen is from a woman, aged 40, mother of four children; for some years suffering from the increasing size of her abdomen, due to a large firm tumour springing chiefly from anterior surface of uterus, and attended with menorrhagia, and marked impairment of general health. I performed panhysterectomy, and had unusual trouble in controlling the bleeding owing to the number and size of veins and the abnormal distribution of the uterine vessels. An excellent convalescence ensued, and when I removed the abdominal stitches eight days later, the cicatrix was all that could be desired. On raising the dressing a few days after-

wards I found it was adherent to a mushroom-shaped growth springing from the upper angle of the wound, which passed close by the navel. Its widest part was about 1·25 in. in width, and the pedicle about half an inch in thickness. An elastic ligature was passed round it, and some days later a silk one was applied; neither caused any pain, and after a little time the mass was easily removed with scissors. Though insensitive it was amply supplied with blood, and I was consequently content to proceed very slowly with its removal.

I have had one similar experience, though the cases present points of contrast worth noting. About two years ago I removed a moderate-sized ovarian cyst from a delicate middle-aged woman; and (as in the case just narrated) an excellent cicatrix was present on the eighth day, when I removed the abdominal stitches. About five or six days subsequently a pedunculated growth, larger than in any other case, was found springing from a point about the middle of the wound. Its growth was unattended by pain of any kind, and in places its surface was quite smooth, though for the most part looking like granulated tissue. Its removal was effected, as in the other case, by repeated ligatures. The patient returned to the country, and at any rate some months afterwards was in good health. I am not aware that such a sequel to hysterectomy has been reported, especially where the tumour removed was benign. On page 56 of Mr. Sutton's work ("Diseases of the Ovaries") the occurrence of such growths after ovariectomy is noted and explained, though no account is furnished of the microscopic structure of the tumours.

Dr. TRAVERS said it was desirable that the growth should be microscopically examined as to its pathology, especially if it was removed by ligature only.

Dr. HEYWOOD SMITH concurred, and thought that the Secretary should write to Dr. Purefoy and ask what his opinion was as to its nature, especially as the tumour was said to be non-malignant.

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REMOVAL OF DOUBLE PYOSALPINX OF SEVENTEEN YEARS' STANDING: WITH SPECIMEN. By ROBERT HUGH HODGSON, M.D., &c.

The symptom pain enters so largely into the many diseases to which the generative organs of women are liable and into the different phases of those diseases that it is one of the most misleading of the chaos of symptoms attributable to diseases of the pelvic organs. If, therefore, I attempt in a few words to clear the atmosphere to but a slight degree I trust that you will not consider my effort a waste of your valuable time. Pain in the uterus may be referred to the front over the pubes or behind to the sacrum. When over the pubes the pain is mostly due to interference with the function of the nerves by pressure of blood, as in the approach of menstruation, to the check to that flow by catarrh, to shock immediately preceding the flow causing congestion in the capillaries, to over stimulation by excessive coitus, to alcoholism, to anæmia, or to the pressure of an over-loaded bowel preventing the return of blood. Among the more permanent causes may be enumerated the stimulation of ovarian disease, and the interference with the return of blood from pressure of tumours, from inflammations involving the veins or lymphatics, and from cardiac disease. In an endeavour to name all the causes of congestion of the uterus one might spend an enormous length of time, serve no good purpose, and then be found to have omitted some considered to be most important.

The above list is, I think, sufficiently varied. Pain in the sacrum, one of the commonest indications of uterine disease, is generally considered to be due to direct pressure upon the sacral plexus as by pregnancy, by fibroids or other growths, or by the binding down by adhesions following inflammation; but I venture to express the opinion that pain in the sacrum from this cause is rare in comparison with that arising from pressure upon the nerve terminal filaments of the uterus by causes such as I have specified as giving

rise to pain over the pubes. For the most part when the pain is in the front, especially in its early stage, it is functional and amenable to medical treatment, whereas when it is in the sacrum it is the result of long-continued congestion having wrought structural change in the uterus which necessitates more radical means for its cure. Though it is true that temporary relief can be afforded in a large proportion of these cases by a copious depletion, instances of such must be common to most of us where patients suffering for many years from constant backache seek relief for the day in order that they may be equal to attend a social gathering. Yet it is seldom that such simple tactics suffice to restore the patient to health, for it is in these chronic cases that we may expect to find a large amount of fibrous tissue either interspersed between the muscular structure of the uterus or supplanting it, and by its contracting nature, in addition to its weight, tending to flex the organ upon itself. It is somewhat difficult to conceive that a healthy uterus should of its own accord fall over one way or the other, or that it should, when so displaced by outside influence, remain as an inert body void of the power of self-rectification. Evidence of this loss of power may in some cases be demonstrated by the introduction of a Hodges' pessary, when it will be observed that though the cervix has been thereby canted in the opposite direction the kink in the cervical canal remains. Draw upon the cervix of a flexed uterus with a volsella and the flexion is more or less removed; release the cervix and the flexion immediately returns. The fact that a pessary does, in some cases of old sacral pain, give relief, indicates the degree of mischief wrought in the uterus rather than the source of the pain. The pyriform shape of the uterus, the direction of the fibres of the three layers composing its muscular coat, and the absence of a fixed point in the pelvis, indicate to my mind that nature intended that the uterus should possess exceptional power of retaining its normal shape when non-pregnant, and of regaining it after delivery, and that the



majority of flexions are due to pathological changes in the uterus itself brought about by congestion of that organ, and that the relief from pain which depletion gives is due to the reduction of blood pressure permitting the lymphatics to exercise their characteristic activity when relieved of even but a small amount of pressure. I think it will be admitted that the uterus is more often retroflexed than anteflexed, and although there is in the present day a feeling of doubt whether there is such a displacement as anteflexion, still when we find the axis of the body of the uterus almost at right angles to the axis of its cervix, with the acute angle forwards, I think we must say that the uterus is anteflexed. Whether the body be flexed upon the cervix or the cervix upon the body matters not, for we have found that one part is flexed upon the other anteriorly. The explanation of retroflexion being more common than anteflexion may be found in the fact that the posterior surface of the body of the uterus is larger and thicker than the anterior, and therefore, receiving more blood during congestion, affords more encouragement for increased growth of fibrous tissue with its subsequent contraction.

The case which I will now, with your permission lay before you, illustrates in several particulars the views I have above expressed.

In the year 1885 a lady, then aged 19, consulted me for pain over the pubes which became greatly exaggerated with the approach of each monthly period, causing her to roll upon her bed in agony for many hours, and which was accompanied by hysteria of a distressing character. I treated her medically for a few weeks, but without giving much relief. I then examined her and advised hot douches and depletion. This advice had, however, the effect of frightening her, and she sought the assistance of a gentleman in Harley Street, who told her that she had nothing the matter with her beyond hysteria, and gave her a prescription. She did not receive much benefit from his treatment, and struggled on, suffering "dreadful pains in front" at her periods until

1889, when, still believing in the infallibility of her doctor, and being desirous of going to Burmah on mission work, she left this country on the doctor's assurance that she would recover. On the voyage out, however, she suffered intensely with menstrual pains, with a high temperature for a few days. Two months later she was again attacked in the same way. In November, 1890, she was stabbed in the chest by a black. The fright thus given she considered started a pain in her back. She was examined, and a pessary inserted which relieved her back, but as the doctor considered that there was some further mischief than displacement he sent her to the Dufferin Hospital, Rangoon, where she remained under treatment for a month. The treatment consisted in syringing and electricity, which so far relieved the pain in her back that she was able to continue her duties, except during her periods, for four years. In 1894 she had malarial fever with boils all over her body. The pain in her back returned, and a muddy discharge from her vagina commenced and lasted continuously until she came to England in 1896, when she became an out-patient of the Samaritan Hospital for a period of five months, when she was taken in and operated upon. This treatment stopped the muddy discharge and relieved the pain over the pubes for one year, but it did not relieve the sacral pain. In 1897 she returned to Burmah, but had a bad voyage, with return of her old menstrual pains. On arrival in Burmah she was seized with very severe pain in her back and could walk only with difficulty. Four months later she again had malarial fever, followed by severe pains in her stomach, thighs and legs, with constant fainting, which lasted four or five days. In 1898 two large abscesses formed in her armpits, and in the same year she had a severe attack of pain in her left side, thigh and leg, which was ascribed to inflammation of her womb. From this date her menstrual flow gradually decreased until the present year, when it almost ceased. In 1898, in addition to the pain in her back, which had been continuous since 1896, a swelling, accompanied with pain,

commenced in her right side. In 1899 she was sent to Rangoon General Hospital to be curetted, but dilatation of the cervix only was done. The pain in the right side continued until the following December, when the patient was too ill to move in bed. She was given a hot bath for half an hour, when she fainted. She was then syringed daily, and two glycerine plugs inserted. But the pain becoming so extreme, in desperation she took some pennyroyal, after which a cyst burst in her inside, flooding her with a brownish watery discharge, and giving great relief from pain and loss of the swelling in her right side. From that time the pain in her right side, which had lasted about a year, left her entirely. After January, 1900, her menstruation became very irregular, and in November of that year she had an attack of inflammation of her right leg which confined her to bed for a month. From January, 1901, until June of this year she had constant headache, diarrhoea and pain.

From the foregoing history, which I am sorry is not more accurately recorded, I think no one will doubt the patient when she says that the seventeen years of suffering she endured had made her life not worth living. Consequently, she again returned to England and placed herself under my care. On May 24, a few days after arrival, she was put under an anæsthetic and examined, but all that I could find was an anteflexed uterus, and what appeared to be the edges of cirrhotic ovaries. On June 4 she was again put under an anæsthetic, and I opened the abdomen a little to the right of the median line and a little lower than midway between the umbilicus and pubes. There were no adhesions and no trace of an old sac; the uterus was freely movable, cylindrical, and anteflexed; the ovarian ligaments were short, and the Fallopian tubes, which were also rather shorter than usual, were about normal in circumference, with retracted fimbriæ and slightly uneven surfaces. The greatest amount of distension of either tube is seen in the specimen now shown. The ovaries are rather atrophied, hard at their free borders and have a degenerated feel at their middle and upper third.

I removed both ovaries and Fallopian tubes near to the uterus and closed the abdominal wound, the walls of which were thin, with silk-worm gut passed through the whole thickness. The day following the operation, and for nearly four days after, there was a sanguineous discharge from the vagina small in quantity. On the second day after the operation the pain, which had been incessant in the sacrum for the last six years, disappeared and has not since returned. The pain over the pubes has also subsided. Fourteen days after the operation the patient was up and about her room, and during the following week she took daily walks out of doors. Her temperature never rose above 99·4°. She is now thoroughly restored to health, and intends shortly returning to Burmah to again take up her mission work. Upon subsequent examination of the Fallopian tubes both ends were found closed, and upon slitting them up sacculations were seen containing what appeared to be pus, which, having been examined by the Clinical Research Association, was reported to be "pus with a trace of blood and a very large number of bacilli." A further report said that "the only organism identified was the bacillus *fluorescens liquefaciens*, which belongs to the group of non-pathogenic bacteria."

In this case the pain over the pubes was constant during seventeen years, with the exception of one year, and the pain was apparently in the situation of the nerve pressure. The sacral pain was constant for six years, and was of reflex origin. The cylindrical shape, the hard consistency, and the return to its flexed condition after straightening, point in my opinion to an abnormal amount of fibrous connective tissue. I attribute the relief of sacral pain two days after the operation to lessening of the blood supply to the fundus and the subsequent absorption of arterial blood exudation. The ovarian monthly stimulation of the uterus to congestion having been checked, there will be no need for development of collateral circulation, whilst absorption having been thereby stimulated, I trust that there will be no return of pain.

Dr. HEYWOOD SMITH asked whether Dr. Hodgson could

say what operation was performed at the Samaritan Hospital, and said he had met with intermittent hydrosalpinx discharging itself into the uterus; in the present case there seemed to be a coloured uterine discharge. Sometimes the uterine end of the oviduct became occluded; and if from time to time the occlusion was overcome, there was an intermittent discharge from the oviduct through the uterus. But that did not necessarily stop any further development of the suppuration, and it was possible that as the disease progressed the uterine end of the oviduct became permanently closed and a true pyosalpinx resulted.

Dr. RICHARD SMITH said the case was an illustration of a class which were very perplexing, as one did not wish to open the abdomen unnecessarily. He had come to the conclusion for some time past that very serious disease of the tubes might arise from some of the ordinary diseases, such as diphtheria, and he was not sure that measles did not sometimes lead to serious inflammations, not amounting to gross disease appreciable to palpation. The case was particularly interesting in view of the general teaching nowadays that pyosalpinx was nearly always gonorrhœal in nature. He did not subscribe to that view, and in the present case the character of the patient put such an idea out of the question. He had known several cases of very severe disease of the tubes in which he was confident that there was nothing of a gonorrhœal nature. The narration of cases like this one of Dr. Hodgson's would encourage them, when patients had had prolonged suffering, to open the abdomen. He also felt that severe disease not infrequently followed directly upon unwise and unnecessary curetting.

Dr. HODGSON, in reply, said he could not ascertain what was done to the patient at the Samaritan Hospital. The history was an old one, and he had to get much of his information from the patient herself; she described the operation at the Samaritan Hospital as a slight one. As there was anteflexion the probability was that her trouble was attributed to congestion of the endometrium, and she

may have been curetted; at all events the operation gave her relief, for twelve months, but after that the symptoms returned. With regard to Dr. Routh's question he did not say he had diagnosed Fallopian disease; even after the tubes were removed the enlargement was so slight that he did not think of their containing pus until he saw it. In reply to Dr. Richard Smith, he could not say whether the patient had diphtheria or any fever before the symptoms. With regard to gonorrhœa, he felt quite sure that she had had nothing of the sort. She came of a very good family, the members of which had been his patients for twenty years.

**BRITISH GYNÆCOLOGICAL SOCIETY.****THURSDAY, OCTOBER 9, 1902.****MR. FREDERICK BOWREMAN JESSETT, A PAST-PRESIDENT,  
IN THE CHAIR.****SPECIMENS.**

Professor J. W. TAYLOR (Birmingham) showed a recent specimen of tubal gestation in which at one end of the tubal sac was seen a congeries of large dilated thin-walled vessels which appeared to be on the point of bursting. The specimen suggested a form of rupture which at present had not been recognised—the rupture, not so much of the tubal sac as of the greater vessels at the placental site. Such a rupture would probably be attended by rapid and excessive bleeding, and its special character escape recognition when the hæmorrhage had caused the vessels to collapse.\*

Dr. MACPHERSON LAWRIE (Weymouth) showed a large pyosalpinx removed from a woman, aged about 20, three months after her marriage; it had not led to any pelvic symptoms, and had been discovered by accident. He also showed two fibroids removed from sisters, aged 37 and 39 respectively; both patients did well. A third sister had been operated on in St. Thomas's Hospital, and two others were awaiting operation for the same kind of tumour. There were nine sisters in the family; five had suffered from cataract and three from both cataract and fibroid tumours. He did not know of any connection between the two affections, but the

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\* See Summary, *infra*, p. 153.

history was an unusual one. The women were all unmarried, except the one operated on in St. Thomas's Hospital; he had no information as to children.

The CHAIRMAN agreed that it was unusual to find so many members of a family have adventitious tumours or growths, and thought the Society was much indebted to Dr. Lawrie for bringing the cases forward.

Professor TAYLOR said he knew of a family in which the mother and two daughters suffered from fibroid tumours, and in another family two sisters suffered from fibroid tumour; but he thought it extraordinary that five sisters should suffer from that affection.

Mr. BOWREMAN JESSETT showed specimens from

#### FOUR CASES ILLUSTRATING THE SIGNIFICANCE OF UTERINE HÆMORRHAGES DUE TO TUMOURS.

The four specimens are all from cases in which the question of uterine hæmorrhage was an important element in the diagnosis.

(1) The first is a uterus removed by vaginal hysterectomy on account of carcinoma of the body. The patient was a woman, aged 38, with a family history of phthisis but none of cancer. She was the mother of five children; all her confinements, though followed by debility and once by a mammary abscess, were fairly easy. Menstruation, established at 17, was irregular (six to eight weeks) with a scanty flow, but had latterly been more regular. She had been fairly healthy, but seven years ago had rheumatic fever, to which perhaps might be attributed a mitral duplication of the first sound of the heart. She was habitually constipated, her motions being hard and occasionally blood-stained, but had had attacks of diarrhoea. She came under my care in April, 1902, complaining of pain in her left side extending into the groin, and a foul yellowish discharge from her vagina. She said that about twelve months previously she had noticed this discharge, and had been sick in the morning on rising, and suffered a good deal of pain,



which, however, passed away after a couple of hours. After a time she found that she could not hold her water, and consulted a doctor, but had no treatment except vaginal douches. The discharge stopped for a time, but returned with increased severity and more pain, and she therefore came to the hospital. Beyond the fact that there was tenderness in both iliac regions, nothing was elicited by external examination. Internally the cervix, hard and fibrous to the touch, was directed forwards; the uterus was not tender, but one ovary was prolapsed. *There was slight bleeding on examination.* On May 5 I removed the uterus and a cystic ovary through the vagina. She was discharged convalescent on June 2. On opening up the uterus the fundus was found to be the seat of carcinomatous deposit.

(2) The second specimen, a comparatively small uterus with a number of sub-peritoneal fibroids, was taken by abdominal section from a single woman, aged 35, admitted to the Cancer Hospital June 28 of this year. A month previously she had been attacked by a dragging pain, and a fortnight later was recommended by her medical attendant to consult me. Her abdomen was very prominent, a large hard tumour was felt to the right of the umbilicus and a smaller nodular mass in the left iliac region; on deep palpation these tumours were found to be connected with each other and to extend into the pelvis; there was no fluctuation or tenderness on pressure. In the vagina the cervix was high up, and moved with the tumours; and in the rectum two irregular tumours could be felt which were connected with the uterus. There was nothing of importance in her family or personal history. Menstruation had been established at 16, lasting for three days in every twenty-eight. For some time past the onset of her periods has been preceded by severe pain not relieved by the flow, which has varied in quantity and sometimes contained clots, and she has suffered from occasional metrorrhagia. I removed the uterus and tumours by a subperitoneal hysterectomy on July 1, dividing the uterus across the cervix. The patient left the hospital convalescent on August 1.

(3) The third specimen removed from a sterile married woman, aged 50, with a family history of cancer, is uterus containing a large submucous fibroid. She was admitted to the hospital on March 15, 1902, complaining of inability to hold her water, abdominal pain of a gnawing character, and hæmorrhage from her vagina, occurring every fortnight and persisting for about a week. Five years previously she had had displacement of her uterus from lifting a heavy weight, and two years later suffered from a dragging pain in her abdomen, and found some difficulty in holding her water. An attempt at reposition then made by a doctor was unsuccessful, but her health improved till last summer, when the pains became worse and she had frequent micturition. Her menstruation was established at the age of 12, lasting for one day every month, painless, scanty, and without clots; she had a persistent white discharge. For the last three years she has been unwell every fortnight with a profuse hæmorrhage lasting a week, and with pain in her back and hypogastrium for a week before the flow; a whitish vaginal discharge has at times been present. The abdomen is very protuberant with a retracted umbilicus. Both iliac fossæ are tender on pressure, and on deep palpation there is a sense of resistance in the left, which was continued up to the lumbar region, but no definite tumour could be made out. The external genitals and vaginal walls were normal, the cervix seemed normal. On bimanual palpation a tumour could be felt in the left fornix movable with the cervix and evidently connected intimately with the uterus. On March 15 I performed abdominal section under ether; the tumour was brought out of the abdomen with a myoma screw and removed, the stump was covered with peritoneum, and the abdominal wound sutured in layers. This patient did well for the first week and then suddenly collapsed, dying on March 24. In this instance the hæmorrhage had been profuse and had been going on for three years.

(4) The fourth specimen is also a submucous fibroid and was removed from a woman, aged 42, admitted to the Cancer Hospital on May 1, 1902. Except for neuralgia

she had always had good health till eight years ago when, after lifting a heavy weight, she felt faint, had profuse flooding, with large clots, and for two days great pain; after a week in bed she quite recovered and the bleeding did not return. In April, 1901, she found that her womb had fallen and projected to the size of an egg outside her body; it was replaced by a practitioner, who kept her in bed for a week, and she wore a ring till January 19, when she was attacked with severe abdominal pain and could not pass water, which had to be drawn off for several days, and she was recommended to come to the Cancer Hospital. The lower part of her abdomen was then swollen and showed striae, but the umbilicus was normal; a distinct tumour, as large as a cocoa-nut, could be felt in the right iliac region extending towards the umbilicus; it was movable, hard, and without fluctuation. The external genitals were normal; the cervix was drawn high up, and in the right fornix was a tumour, somewhat elastic but not tender, which moved with the cervix and which could also be felt in the left fornix; the uterus lay in front of the tumour, with which it was intimately connected. Her menstruation established at 14 regularly for three or four days monthly; pain sometimes preceded the flow, which was fair in amount and without clots. The tumour was removed by abdominal hysterectomy on May 20, and the patient was discharged well on June 21. In this case, with the exception of the single flooding eight years ago, there appears to have been no abnormal bleeding whatever.

The following paper was then read:—

UTERUS BICORNIS WITH RIGHT RUDIMENTARY HORN,  
PERIODICAL DISTENSION OF THE RIGHT HORN WITH  
FLUID AND CONSEQUENT INFLAMMATION IN IT AND  
AROUND IT.—LATE MENSTRUAL PAIN.—OPERATION.  
—RECOVERY. By JOHN W. TAYLOR, M.Sc., F.R.C.S.,  
Professor of Gynæcology, Birmingham University.

Miss M. B., aged 17, was sent to me on October 28, 1901, by Dr. Neal, of the Coventry Road, with the following

- note: "I should be much obliged if you would give me your opinion concerning Miss B., and any hints for treatment. She has *very* severe pains after menstruation." The patient was a well-developed, healthy-looking girl, complaining of very definite pain in the right side, which always came on about the fifth day after the onset of menstruation and lasted for a few days afterwards. This pain had been felt for nearly four years (from the date of the first menstruation), but had been latterly increasing in severity and becoming unbearable. The first menstruation occurred at 13 years of age—since that time the patient had always been "regular." The period usually lasted four days. The discharge was slight in amount.

The following note was made of the examination: "I find a large, hard tumour (presumably the right ovary) fixed to the right of the retroflexed fundus." "When I gently try if the uterus is replaceable, this does not follow."

I came to the conclusion that both uterus and tumour were adherent in the pouch of Douglas; that the tumour was the cause of the right side pain, and that in all probability abdominal section would be necessary in order to deal with the condition.

Being loth, however, to submit so young a patient to operation unless absolutely necessary, I asked Dr. Neal to let me watch the patient for some weeks before deciding. During this time the right-sided tumour very markedly decreased in size, showing that it was liable to considerable alteration in this respect. There was, however, no difference in the fixation of the pelvic contents, and but very little (if any) improvement in the pain after menstruation. As far as could be ascertained there was no tuberculous history, either in the patient or her family, and no history or danger of gonorrhœal infection.

On January 28, 1902, exactly three months after the first consultation, I operated. I found a small muscular solid tumour, very adherent in the pelvic floor, to the right of the retroflexed and adherent uterus. Detaching this and the

uterus from their adhesions I was able to bring the fundus forward and draw the tumour up to the incision for examination. It was then seen that the ovary was perfectly normal and with the tube was situated altogether on the outer side of the tumour. The question then arose whether this tumour could be a large myoma of the tube close to its uterine attachment, or a rudimentary horn. No trace of the round ligament could be found on the "uterine" side of the tumour, but beyond it, on the outer side, in close relation with the tube, a ligamentary ridge was found curving forwards, which evidently represented the round ligament. The tumour was therefore decided to be formed by a right rudimentary horn. It is worthy of note, however, that in this case the uterus of the opposite (or left) side did not appear to suffer materially in size or shape by its separation. Except for the absence of the round ligament one would have said that its general appearance was that of a normal virginal uterus.

I removed the tumour of the right horn by a chain of ligatures without disturbing the other organs, so that nothing beyond it was taken away. The stump appeared to be solely one of muscle tissue, and no mucous canal was seen leading into or out of the tumour. On cutting into the tumour some dirty-looking watery fluid escaped from an apparently closed cavity in its centre lined with mucous membrane. There was no trace of blood within this cavity, which on the expulsion of the fluid immediately contracted.

At the close of the operation the pelvis was found to be perfectly clean, and the chain of ligatures held the uterus in "normal" anteversion.

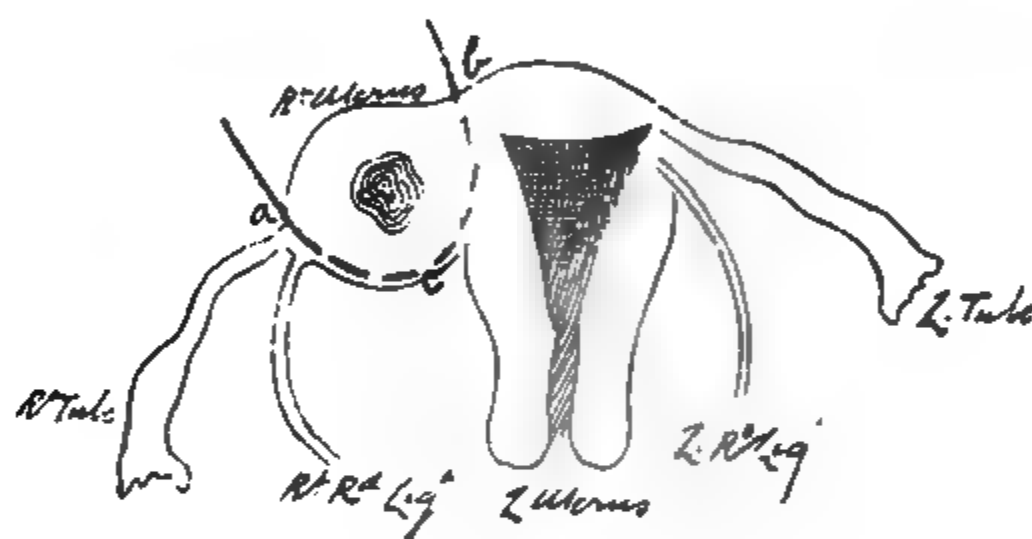
The patient made a very easy and uneventful recovery. Her bowels were well opened on the following morning, and on February 12 she was discharged as convalescent. She attended to report herself on March 17. She had passed her first menstrual period without pain, and was in good health and condition. Again on October 6 she attended at the out-patient department and reported that she had menstruated regularly without the slightest pain ever since the operation, and was perfectly well.

The uterine horn removed was examined by Professor Leith, whose report is as follows:—

"Four pieces were selected and examined.

"Piece I.—Taken from centre of body of (secondary) uterus. This shows a central cavity, lined by endometrium, with typical mucous membrane lining. It is surrounded by tissue, which is noticeably mapped out into definite muscular areas by bands of fibrous tissue.

"Piece II.—Taken from tubal end (a) of semicircular incision line which ran from the Fallopian tube on the outer side to the uterine attachment on the inner side. This



Diagrammatic representation of condition.

showed no sign of any cavity, merely a solid muscular tissue mapped out into areas as above. The blood-vessels were well formed and numerous.

"Piece III.—Taken from uterine end of the same incision (b). This showed no sign of any cavity leading from mucous cavity of horn into structure representing other uterus. It showed merely muscular tissue as above, with many fibrous bands and areas in it.

"Piece IV.—Taken from between the other two (c) showed the same characters as the other two, with relatively less muscular and more fibrous tissue."

*Remarks*—The interest of this case appears to me to

lie, not only in its rarity and in the peculiar isolation of the mucous cavity of the rudimentary horn, but also in the explanation which the condition affords of the peculiar symptoms of the patient. The patient's pain was a definite, right-sided pain, attaining its maximum on the fifth day after the onset of menstruation. I thought at the time of her first visit that this was an extraordinary symptom to be associated with ovarian tumour, or enlargement, any ovarian pain usually preceding the menstrual flow, but no other explanation of the adherent tumour to the right of the fundus suggested itself to my mind. While watching the case it was noticed that the tumour was subject to slow alteration in size, and the time of greatest enlargement appeared to correspond with that of greatest pain.

Viewed in the light of post-operative knowledge the explanation of these symptoms appears to be that at every menstrual period some exudation occurred into the little closed mucous chamber of the horn, that the distension of this attained its maximum about the fifth day after the onset of the period, and that it then slowly subsided. This process must itself have been painful and must have caused some inflammation of the horn, resulting in increased pain and in the adhesions of its peritoneal surface.

Dr. HODGSON asked whether it was absolutely certain that the specimen was a bicornual uterus; whether the condition might not have arisen in salpingitis; and whether the pain on the fifth day after the onset of the period might not be connected with the natural shedding of the uterine mucosa after menstruation.

Professor TAYLOR was quite certain that the condition was as he had described it. He had himself at first thought that the tumour might be a myoma of the tube, but that idea was negatived by the fact that the round ligament was present only to the outer side of the tumour, and by the careful examination made by Professor Leith, which showed that the structure of the walls and lining membrane of the

cavity resembled that of a normal uterus rather than of a tube. Microscopically there was no trace of any communication between the cavity and the other horn. As regards the pain, no doubt at the onset of the period a process resembling menstruation took place in this cavity, though there was no blood, and the maximum distension by the accumulation of fluid was reached on the fifth day, when the size of the tumour was greatest; the pain diminished as the swelling subsided, but the addition of some peritoneal inflammation caused adhesions, and the attacks tended to increase in severity.

The following paper was then read by the CHAIRMAN :—

SOME COMPLICATIONS ARISING SUBSEQUENTLY TO CŒLIOTOMY. By FRED. BOWREMAN JESSETT, F.R.C.S., Surgeon to the Cancer Hospital, Brompton.

I have thought the subject I have chosen for my paper might be of interest to the Fellows of the Society, as scarcely a meeting is allowed to pass without the exhibition of numerous specimens of growths or organs removed by coeliotomy. Many of these specimens have been removed only a few days or hours before exhibition, and in a very large proportion of instances the operations are reported to have been attended with a successful issue. It is very rarely, however, that we hear anything of the after history of the patients from whom these specimens have been removed, and I have often thought and wondered if all of them have been so much benefited as they themselves anticipated, or the operator could have wished.

I think it will be generally admitted that after hysterectomy, abdominal or vaginal, after ovariectomy or even oöphorectomy, or after the removal of the tubes for hydro- or pyosalpinx, it is not uncommon for patients to return in a few months complaining of acute pains, referable most commonly to the region of the pelvis, but not infrequently to other parts of the abdomen. On most careful examina-



tion nothing may be found to account for these troubles, and often they are attributed to neurosis, and the patient told that in time her pain will cease, and this undoubtedly in many instances is true, but, too often, the patient continues to suffer for an indefinite period.

It is very desirable, therefore, to try and discover the causes of these troubles, and it is for this purpose that I venture to lay before the Society some of my experiences.

It is probable that in a large number of cases of coeliotomy subsequent adhesions are formed, most frequently to the parietal wound or to the stump left from the operation, and the frequency with which they are met with no doubt depends somewhat upon the presence of slight asepsis. The more aseptic the operation and the less the peritoneum is injured or manipulated, the less likely are these adhesions to occur, and, if they do occur, they will be slighter and more fragile. I cannot, however, help thinking that some patients are much more liable than others to contract adhesions. When adhesions have formed, pain is sure to follow to a greater or lesser extent, and the surgeon should when operating bear this in mind, and should pay special attention to the toilet of the peritoneum before closing the wound. He should be careful to see that no blood clot is left either in the pouch of Douglas or between the intestines, and, above all, be careful to draw down the great omentum over the intestines, as less trouble will arise from adhesion of this than if by any accident a loop of intestine becomes glued to the wound.

If the case be one of ordinary ovariectomy or oöphorectomy, the stump left after removing the cyst, tube or ovary should be carefully stitched over and buried so as to be completely covered with peritoneum. The same care must be taken in an hysterectomy, the removal of a kidney or appendix, to see that the peritoneum is neatly united over the seat of operation, so as to present no uncovered surface. For this stitching ordinary sterilised catgut should be used, not silk.

The adhesions formed after coeliotomy may not only be the cause of pain and great discomfort, but also of serious peril to the patient. I have in a few cases had to open the abdomen a second time for the relief of pain, and in every case have found adhesions, which on being divided or separated have given relief. I have seen the same thing occur in the cases of other surgeons. I have also had to reopen the abdomen for the relief of intestinal obstruction caused either by a band of lymph stretching across and constricting the bowel, or for a volvulus, the result of adhesion of two portions of the bowel, owing probably to the deposit of a blood-clot. In one case the abdomen was opened no less than five times, thrice by myself and twice by another surgeon. This patient was operated on in the first instance for fibro-cystic disease of the ovaries, for which oöphorectomy was performed; she made an excellent recovery and left the hospital; subsequently, about three months after the operation, she returned complaining of acute pain and much distension; she was treated for some weeks, but the pain becoming more distressing, she was taken into the hospital and the abdomen reopened; a band of lymph was found stretching from the omentum to the stump of the left side; this band clearly caused constriction of the sigmoid flexure when that portion of the intestine was loaded. The band was ligatured in two places and removed. A good recovery resulted, but in a short time she again returned complaining of acute pain in the abdomen; I being out of town, she migrated to another hospital, where her abdomen was again opened, and adhesions discovered; these were torn down, and a good recovery resulted. She was subsequently, I believe, operated on again by the same surgeon, and more adhesions found. After this she remained well for some considerable period, when she consulted me again, complaining that it was with the greatest difficulty the bowels could be moved, always requiring medicine and enemata, and giving her great pain. On admission the abdomen was distended, especially along the site of the ascending colon.

and chiefly at the hepatic flexure. I may say that at the last operation the incision was made over the right semilunar line. From the symptoms it was considered an adhesion probably existed causing either a kink in the colon below the point of protuberance, or a band existed causing constriction. On now operating for the fifth time, adhesions were discovered along the whole length of the last incision, the omentum was adherent, very much thickened, and drawn considerably to the right, causing the transverse colon to be dragged down, thus creating an acute flexion at the hepatic flexure of the colon, and it was readily seen that if the bowels became at all constipated great pain and difficulty would be caused. The adhesion was carefully divided and the omentum freed, great care being taken in stitching the parietal peritoneum first with catgut, and the other layers of the parietes, layer by layer, with specially prepared ten-day gut. The patient experienced immediate relief, and has continued well since, and I trust will remain so.

Another cause of trouble after cœliotomy, more especially after hysterectomy, is due to adhesion or kinking of the ureter, or the possible including the ureter in one of the ligatures. This complication gives rise to very great distress with hydronephrosis. In one case I have seen complete occlusion of both ureters; this case was one of very large sloughing fibroid of the uterus in which abdominal hysterectomy was performed. As no urine was voided for twenty-four hours, after consultation it was decided to open the abdomen again, suspecting that the ureter might have been included in the ligatures which were applied to the uterine arteries. On examination, however, it was discovered that the ligatures were quite free from the ureter, but on being tied the tissues were dragged so as to cause a kink in the ureter, which was dilated considerably above. Upon liberating the ligatures the kink was relieved and urine at once passed into the bladder. This case, at the operation on which I was present, made a deep impression on my mind, and convinced me of the wisdom, in any future case when

no urine was passed and it was proved by catheterisation that none had entered the bladder, of at once placing the patient under an anæsthetic and reopening the abdomen with a view of examining if there was any constriction or kinking of the ureters.

To avoid possible risk of such an accident I think it is well not to ligature the uterine arteries until the anterior and posterior flaps of peritoneum have been reflected from the uterus, when the vessels are readily felt running up the side of the cervix and can be ligatured without including other tissues. I do not agree with the dictum laid down by some authorities to cut across the vessels before ligaturing and then catch up the bleeding points, as, in the first place, a very large amount of blood will often escape, quickly filling the pelvis, and, secondly, these vessels, from having some considerable tension placed upon them in pulling the uterus with its tumour out of the pelvis, often retract very much and I have seen considerable difficulty experienced in catching them up, and a large quantity of blood lost before they could be secured.

The fact must not be lost sight of that the appendix sometimes becomes involved, and that all the symptoms of acute appendicitis may occur after the removal of the appendages on the right side. Indeed, it sometimes happens that symptoms of appendicitis precede operation, and when the abdomen is opened the appendix is found adherent to the tube or ovary. I have met with two such cases in my practice; in one the appendix was firmly adherent to the fimbriated extremity of the tube, and in the other it was attached to the ovary apparently where one of the Graafian follicles had discharged itself.

I had occasion to operate on a patient who had had her right tube and ovary removed for a pyosalpinx by a surgeon. She had made an excellent recovery, and all went well for some two or three months, when she was seized with acute pain in her right iliac region and all the symptoms of acute appendicitis. I advised immediate operation, and on opening

the abdomen found the appendix firmly adherent in the pelvis to the site of the first operation, and it was with some difficulty that I was enabled to release it; this, however, was safely accomplished and the appendix removed, and the patient made a good recovery.

Another cause of pain is sometimes due to the ovary, one or both of which have been left after an hysterectomy, becoming adherent to and bound down by adhesion to the floor of the pelvis at the line of union of the peritoneum; this I think is more likely to occur when silk is used for the stitching of the peritoneal flaps. I always prefer using catgut specially prepared for this. In case of complete hysterectomy it sometimes happens that a loop of intestine, or more frequently the omentum, becomes adherent to the site of the opening into the vagina, causing, in the case of the bowel being adherent, acute flexion and possible obstruction; this is more likely to occur, in cases of vaginal hysterectomy, if care is not taken to draw the peritoneal flaps well down into the vagina. In the early days of vaginal hysterectomy I met with two or three such cases.

To avoid the trouble of adhesion I have for some time now used specially prepared catgut for all suturing of the peritoneum, also for ligaturing any vessels or adhesions that may exist, using fine silk only for the ligaturing of the ovarian and uterine arteries. I am most careful to bury all stumps of tumours, and to suture very carefully any portion of peritoneum that may have been torn and cut. The parietal peritoneum I close with a continuous suture of catgut, then place about three to six interrupted sutures of specially prepared gut through the fascia and muscle, letting them be about one inch apart; next I unite the fascia with a continuous suture of catgut, and finally unite the edges of the skin with a continuous suture of fine silk or horsehair. These are removed on the tenth day and a strip of plaster applied.

With respect to the after-treatment, I always, as a routine treatment, give gr. v. of calomel the night of the day after operation, and a soap and water enema on the morning

following. The importance of getting the bowels to act within thirty-six or forty-eight hours after coeliotomy cannot be over-estimated, whether by means of calomel or saline aperients perhaps it does not signify, one operator prefers one, another operator likes another. To the late Lawson Tait, perhaps, is due the credit for insisting on this, but it will be remembered he introduced the giving of purgatives for the treatment of peritonitis, and here, I venture to think, he mistook tympanitis due to paresis of the bowel, which so frequently occurs after coeliotomies, for peritonitis. Paresis of the bowel and tympanitis, as we all know now, is a very common complication after these operations, especially when there have been many adhesions necessitating the undue manipulation of the intestines; a very troublesome symptom it is, often requiring several doses of aperient, and the repetition of turpentine enemata before a proper action can be obtained. Distension, however, can often be relieved by the introduction of the long tube *per anum*, and I am in the habit of allowing a short enema tube to be inserted and left in the rectum, so that the flatus may come away more readily.

Many cases that died after operation in the early days of abdominal section, and which were returned as having died of peritonitis, I am convinced really succumbed to this cause, tympanitis due to paresis of the bowel, owing to the old practice of giving opium with a view of keeping the bowels confined for several days after the operation.

In the limits of this paper I have only ventured to point out a few of the complications that are so often met with after these abdominal operations; had I extended my observations to those complications which sometimes follow operation for gastrostomy, gastro-enterostomy, or other intestinal operations, or for operations on the kidney, gall-bladder, and the like—all of which, by the way, are practically outside the domain of gynæcology—a paper of indefinite length might be written.

The questions which naturally arise are what is best to

be done for these patients who come to us so frequently complaining of these after-claps. Possibly I may be told by some operators that the methods adopted by them preclude the possibility of such complications; if there are any such I shall be glad to hear how they manage it, as I must candidly admit that I am occasionally confronted with patients who suffer in the way I have described, and have, several times, been consulted by patients so suffering who have been operated on by others.

The question very naturally arises—What is the best and most appropriate treatment? Personally, I always hold out hopes, unless there are some acute and pressing symptoms in which delay would endanger the patient's life, that the pain, &c., complained of will in time disappear, and as in many cases it undoubtedly does do so, I should not advise too hasty operative interference.

Should, however, the symptoms continue, and the patient's happiness and usefulness be imperilled, I should not hesitate to reopen the abdomen, and carefully to divide any adhesions that might exist, and either ligature or stitch them over; in dealing with omentum I think it better, after ligaturing, to fold the end over and fix it with a few catgut sutures so as to cover the divided portion with peritoneum, treating the distal end in the same manner if practicable.

One other not uncommon after complication is ventral hernia. This, I am pleased to say, is not so frequently met with now as formerly, and undoubtedly this is due to the greater care which is now taken in the technique of closing the parietal wound and the more rare use of drainage tubes. I have no doubt that the fixing the tissues in distinct layers with catgut, prepared in such a way as to ensure it lasting for some ten days before becoming absorbed, is by far the best method, and I cannot lay too much stress upon the necessity of first being most careful to stitch the peritoneum with a continuous suture so as to prevent any of the tissues being exposed to the peritoneal cavity. For this ordinary catgut is quite sufficient, as the peritoneum finally unites in

about thirty-six hours; next, to bring the muscular tissue and fascia together by interrupted sutures of ten-day catgut, and then a continuous suture to ensure the close approximation of the superficial fascia, and lastly, the continuous suture for the skin with horsehair or fine silk.

I never now use silk for buried sutures, as, let it be prepared ever so carefully, it will occasionally give trouble by establishing stitch abscesses, which are not only painful but always tiresome as retarding the convalescence of the patient.

#### DISCUSSION.

Dr. MACPHERSON LAWRIE, in thanking Mr. Jessett for his interesting paper, said that nothing could be more profitable than to report the after-results of abdominal sections. In his own more or less limited experience, he had not often had occasion to open the abdomen for adhesions, but had sometimes had trouble at the time of the operation rather than afterwards, on account of the appendix adhering to the tube and ovary; he had, however, generally found it sufficient for his purpose to separate the appendix and leave it. He never felt happy himself till the patient's bowels had acted, but it was very odd how men differed on the question of aperients. Lawson Tait said if the bowels did not act and there was no distension or sickness, give an injection, and if that did not do give a Seidlitz powder. That seemed simple, but if one followed up the cases one found that it involved a good deal more than was embraced in a few descriptive words. It was not infrequently a matter of repeated injections and aperients, and he had often seen cases pulled through and saved who would in all probability have died if it had been left to the discretion of the nurses to give only one enema or four grains of calomel. It was the persistence of the nurses which saved those patients. His own plan, as a rule, was to give two ounces of castor oil in emulsion, which was generally easily borne and prompt and satisfactory in its results. An



eminent surgeon about a year ago had surprised him by saying that he did not trouble about aperients for the first four days after the operation, and did not care whether the bowels acted naturally or not until the fourth day; and that he gave, without hesitation, a quarter to half a grain of morphia where there was pain or restlessness. That surgeon declared that his results were very good. He (Dr. Lawrie) had been very much impressed, in cases of obstinate sickness, by the benefit of emptying the stomach rapidly by means of the tube. Quite recently, after a troublesome hysterectomy, the patient was very sick indeed, though she did not bring up much matter; she could take no food whatever. The tube brought up nearly two pints of sticky green grumous fluid, and after that the patient went straight ahead towards recovery. He had no idea that the stomach was so overloaded, and thought that patient would probably have died if the tube had not been used. Ventral hernia he had been disappointed with occasionally, but not very often. In nine cases out of ten he passed silkworm gut sutures right through the abdominal walls, and took great pains to keep the muscles and fascia with forceps, on each side, well exposed as he tied them together; he had comparatively little trouble with ventral hernia.

In reply to a question Dr. Lawrie said that the patient referred to had ether, as practically all the patients at his hospital did. With regard to anæsthetics generally, there was a very strong impression at his hospital that if the patients were thoroughly sick after the operation they did better than if they were not. Some people rather dreaded such sickness, but he and his colleagues were always pleased to see it. At the end of forty-eight hours after the operation sickness was not so welcome. At one time a forty-eight hours' starvation was practised, but that custom seemed to have disappeared. He gave his patients a little nourishment soon after the operation, and the quantity and quality were gradually increased from that time. He strongly advocated the use of swabs instead of sponges, having altogether abandoned sponges himself.

Professor TAYLOR concurred with Mr. Jessett that trouble after abdominal section was most commonly due to adhesions. In one case acute obstruction came on quite suddenly about seven months after ovariectomy. The patient had been perfectly well except for occasional attacks of indigestion of no great importance, until one night she was seized with acute obstruction, apparently high up, as she vomited every two or three minutes. He found in that case that there was a simple band from the omentum and from the pelvic wall to the ovarian stump, and the small intestine, comparatively high up, was kinked over the band. By division of that band the obstruction was relieved, and she had been perfectly well since; much better than she had been after the first operation. He had seen a curious case which was worth mentioning. A conservative operation had been done, not by himself, upon a small cyst of the ovary. The ovary was divided, and the tumour enucleated. The bleeding from the raw surface was stopped—he did not know whether by cautery or ligatures—and nothing further was done, though it would have been perhaps wiser to have sutured. For a long time after that operation the patient had partial but marked obstruction, and the case came under his care, and he, after careful observation, advised a second operation. On opening the abdomen he found that some small intestine had become absolutely adherent in the cleft ovary, and that it was difficult for the motion to pass the angle at the bottom of the cleft. He freed the intestine and sewed the cleft together. In doing a conservative operation one should therefore recognise the danger of leaving a raw surface which might lead to acute obstruction. Mr. Jessett had spoken about the superiority of catgut over silk. Dr. Taylor thought it depended very largely upon the size of the silk. He had used fine (ophthalmic) silk for buried sutures, especially so in resections of the bowel, and thought, where it was equal to the strain, it was as satisfactory, as easily absorbed, and as little irritating, as catgut. In one instance, in which the patient died from apoplexy some days

after resection of the bowel, he had been able to verify this opinion. Like Dr. Lawrie, he preferred gauze swabs or pads to sponges, as they could be perfectly sterilised by super-heated steam; his own were made in different sizes, of sixteen thicknesses of gauze, and held fluid well. In the obstipation and distension of the abdomen met with after abdominal section, too much influence, in his opinion, had been attributed to paresis of the intestine, and too little to peritonitis. Many cases could be saved by enemata and careful nursing—but adhesions were much more likely to follow where there was peritonitis. In regard to hernia, happily, since the practice of suturing the abdominal wound in layers had obtained, it was not so frequently met with; if one had not to use a drainage tube and an exact suture could be made for the whole length of the wound, perfect union would result. He used silk for the peritoneum, and passed silk-worm gut through the muscles, fascia, and integument, using silk again for the fascia. The worst cases of hernia were in the days when the clamp was employed in hysterectomy.

Dr. RICHARD SMITH quite agreed with Mr. Jessett's method of suturing the abdominal wall. At the Hospital for Women, Soho Square, the practice was to close the peritoneum with a continuous catgut suture, the fascia with stronger catgut, and the skin with fine silk or horsehair. He had for some years been convinced of the importance of paying attention to the condition of the stomach in cases of intestinal trouble. The stomach in many cases became dilated, a condition that was sometimes attributed to the anæsthetic and to the long time the patient was kept under it, perhaps two hours or more. Moreover, a prolonged liquid diet was apt to lead to gastric dilatation, feebleness and pain. Great relief would then be afforded by washing out the stomach.

Mr. CHARLES RYALL remarked that from his experience in reopening the abdomen after operations, he was struck by the fact that the adhesions he met with in former years

were much firmer and more extensive than those usually found at the present day. This he attributed to the improvements in abdominal procedure; in earlier days antiseptics were almost invariably employed; now normal salt solution or sterile water was used if the abdomen was washed out at all. Adhesions might, however, be due to injury to intestines from exposure to air or from excessive manipulation with the hands or with sponges; such injury led to stasis in the circulation and effusions into the peritoneal cavity, and when adjacent parts remained in undisturbed contact for any length of time, adhesions followed as a matter of course. Apart from that, there was apt to be stasis of the intestine, at all events as regards its contents, and hence the necessity for an early evacuation after operation, which should empty the bowel, stimulate the circulation, and re-establish the normal physiological condition of the parts.

Dr. HODGSON said, that after ether narcosis there was often a large amount of bilious secretion in the stomach; he thought that one of the reasons a purgative administered soon after operation was so beneficial, was that it carried away any such accumulation.

Dr. J. J. MACAN reminded the Fellows that after the administration of ether to monkeys a considerable amount of the ether was found in the stomach, and referred to the remarks of Dr. Bedford Fenwick at the May meeting of the Society on the advantage of allowing the patients to have a good drink of water before the anæsthetic was administered; the vomiting after the operation, if it occurred, was not then of such a distressing character as otherwise; the water seemed to afford relief very much in the way referred to by Dr. Macpherson Lawrie. He alluded to a case of hysterectomy for ruptured uterus, recently published,\* in which the washing out of the stomach several days after the operation had been most beneficial. He attributed much advantage to the

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\* See Summary, *infra*, p. 169.

Trendelenburg position as lessening the danger of exposure and injury, and consequent adhesions of the intestinal serosa, and thought that if drainage, where indispensable, was in every possible instance secured by the vaginal way, hernia after laparotomy would become still more infrequent.

Mr. MANSELL MOULLIN had been fortunate in having little personal experience of adhesions after operation. As bearing on the alleged influence of sepsis in their formation and the propriety of washing out the abdomen, he mentioned a case of double pyosalpinx on which he had operated recently; he had washed out the peritoneal cavity, and had closed the wound in his usual way, and the patient recovered perfectly and was on the point of leaving the hospital a month afterwards, when symptoms of obstruction declared themselves and he had to open the abdomen. There were adhesions in every direction; one coil of intestine adherent to the pedicle formed a constricting band, which had caused gangrene of the bowel. He resected the bowel, but the patient did not recover. He was in favour of allowing the patient to drink freely after the anæsthetic; tea seemed to be the most grateful beverage, and if the patient did bring it up the stomach was washed out more efficiently.

Mr. JESSETT, in reply, said that as regarded aperients he pinned his faith upon calomel, and approved of the routine practice of giving five grains on the morning after operation and repeating the dose if necessary. If the bowels were not relieved by this, and there were much distension, he would rely upon a saturated solution of sulphate of magnesia injected into the rectum. Dr. Macpherson Lawrie's suggestion as to clearing out the stomach was a valuable one, especially if vomiting were persistent. He had formerly practised the through-and-through suture of the abdominal parietes, but was now a complete convert to the method of suturing in layers, and thought the most important step was to secure the accurate approximation of the aponeuroses of the recti. He did not think it greatly mattered whether one used swabs or sponges so long as they were clean and aseptic. At his

hospital the sponges were very carefully prepared. If they had been employed in any operation in which they were much soiled they were at once cast away and fresh ones substituted; but after ordinary operations they were put into very strong soda-water, then into Condyl's fluid, and afterwards were bleached by being placed in sulphurous acid, so that they came out beautifully clean and bright. After they had passed through this cleansing they were always put into a weak carbolic acid solution. Personally he preferred sponges to work with, as he had found swabs apt to crumble into little lumps; swabs, however, offered the advantage that they only required thorough boiling to make them aseptic. He was sure that drainage through the wound was one of the chief causes of ventral hernia; undoubtedly, a better way of drainage was through the vagina. He thought it a mistake to wash out the abdomen, and never did so even if a pyosalpinx broke under his hand, but made a most careful toilet of the peritoneum and inserted a drainage tube through the vagina.

## ORIGINAL COMMUNICATIONS.

## THE AIMS AND METHODS OF MODERN GYNÆCOLOGY.\*

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AT the beginning of the work of our Society, it seems well to survey the questions of interest which now stand in the foreground of our specialty. Gratifying as the progress already made has been, we shall see that so much remains to be done, that in all directions a wide field is still open in which there is plenty of room for the work of everyone of us and our fellow-labourers. Happily the time is past when we were inclined, not without resignation, to look upon the domain of obstetrics, with which that of gynæcology is so inseparably connected, as worked out; in these, as in all other branches of medicine, an undreamed-of extension of biological and other auxiliary methods of research has enlarged our view in all directions. Every old principle in midwifery and the diseases of women has to be submitted to the proof of improved methods, and directly this is attempted, new problems are presented for solution and fill us with earnest desire and with confident hope of sharing in their solution.

Beginning our survey *ab ovo*, we at once come upon the question of *the impregnation and implantation of the ovum*. The theories on this branch of research which perhaps all of

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\* An Address at the Foundation of the Pomeranian Obstetrical and Gynæcological Society, 1902. (*Berliner k. Wchns.*, 1902, No. 19.)

us have been accepting, though they seem to offer some elucidation of the processes, cannot stand under critical examination by recent embryological methods. Even the way in which the ovum and spermatozoon come into contact is still involved in obscurity. Some observations lead one to suppose that this contact takes place in the tube, as William Krause and Sobotta have ascertained that it does in mice, but no evidence exists as to how it happens in woman. Yet a clear insight on this point is wanted for the explanation of the physiological process of impregnation and of various pathological conditions. We shall not, for instance, be clear about the origin of extrauterine foetation until we have approached the previous question of the physiological contact of ovum and spermatozoon.

The process of *implantation* of the fertilised ovum, its enclosure by the reflexa, and the development of the relations between the chorionic villi and the serotina, seemed satisfactorily explained in the diagrammatic pictures of Reichert and the axiomatic statements of Leopold, until some time ago gaps and unsolved riddles were discovered in this explanation by the embryologists. The researches of Hubert Peters and Graf Spce proved that the implantation is due, not in any way to the enclosure of the ovum by the proliferation of the mucosa, but rather to some active part taken by the fertilised ovum itself and, as regards implantation in the tube, this view received further support by the preparations exhibited by Heinsius at the Congress of Gynæcologists at Giessen in 1901. In the meantime, Bonnet and Kolster have been investigating the successive changes in the decidua by the strict methods of embryological research, and though their investigations are not yet completed, what Bonnet lately reported to the Greifswald Medical Society supports the idea that the ovum does really play an active part in the process of implantation, and that the cells of Langhans exercise a peculiar, and one might almost say destructive, effect. We cannot at present form any definite estimate of the full import of these investigations, but our



vious ideas of implantation in the uterus, as well as in the tube, receive an eventful shock from the inspection of such preparations as Heinsius exhibited. Further investigation will here be valuable, and the relation between the various kinds of animals must be determined to bring the conditions found in woman into agreement with them.

The development of the foetus, the foundation of its sex, and the unfolding of its skeleton, have been the subjects of much study and many hypotheses. The hopes awakened by the works of Schenk have not received any confirmation either from control experiments or from the anxious trials of his methods made by interested married couples. The question of the duration of pregnancy, in a certain sense settled by the terms of the recent Civil Code, has, in consequence of arguments brought forward by Olshausen and v. Winckel, been reopened for discussion from a clinical point of view, and is another point that cannot be thoroughly elucidated till the above-mentioned question as to where and when the contact between the ovum and spermatozoon takes place, has been answered.

*The mechanism of labour* takes an important place among the studies which are most interesting to those called upon to educate the rising generation of physicians, and from its significance for the apprehension and correction of many abnormalities of childbirth is equally important to practical obstetricians. The great majority of those I am addressing have no doubt, while clinical assistants, met with these anomalies, and will agree with me that it is extremely unsatisfactory that as yet we have no definite and concordant views of the physiological mechanism of even the most common presentations of the foetus; no clear insight into any single step in the mechanism of labour. The development of the various rotations, as again recently explained in important works by Olshausen, Kaltenbach, J. Veit, and others, require further investigation, and this is particularly the case in regard to those deviations from the regular course of labour which are more frequently met with in practice.

The pathology of labour naturally suggests the pathology of the pelvis, of which our knowledge has, in the last ten years, been considerably increased, especially in regard to the spondylolisthetic, the osteomalacic, and funnel-shaped deformities. A study of the comprehensive description of pelvic pathology given by Breus and Kolisko will show how much still remains to be done, and act as an extremely fruitful stimulant.

As regards *placenta prævia*, more than any other of the anomalies of pregnancy, we have perhaps reached certain definite conclusions, but even here an extremely significant reaction has taken place in recent years. In cases in which danger is not averted by the head presenting and eliciting energetic spontaneous uterine contractions, it is an immense advantage that we have learned, by immediate delivery after version and engagement of the pelvic extremity of the child, to ward off the imminent danger of laceration of the cervix, and have thereby materially improved the prognosis, at all events for the mother. In this, the so-called Berlin method, the painful possibility of not delivering the child alive, must only too often be taken into consideration as part of the bargain. Dilation of the lower uterine segment, by the metreurynter, has proved marvellously successful in these cases.

In contrast with this decided gain in the knowledge and successful treatment of what is, perhaps, the most common of the serious complications of pregnancy, we must admit that our knowledge of the etiology and treatment of eclampsia is lamentably deficient. It is extremely fortunate that this subject was chosen for discussion at last year's Congress at Giessen. The outspoken interchange there of practical and experimental experience and observation, forced upon us the conviction that we are very far from knowing the ultimate cause of eclampsia. We certainly know that some anatomical lesions are repeatedly met with, which unmistakably indicate that, in this disease, we are dealing with a form of intoxication. But this intoxication remains a riddle.

share in the solution of which is certainly worth the exertion of the best of us. Whoever finds the key to it will assuredly establish a claim to be reckoned among the benefactors of the human race. ●

*Rupture of the uterus* is another point in the pathology of labour that urgently requires elucidation. It is remarkable that, in spite of the large number of cases recorded, and the clearing up of the etiology of this accident, the question of its treatment still remains open. It appears, however, to be admitted that dogmatism is out of place, and that each individual case must be treated on its own merits. Amputation of the torn fundus, vaginal or abdominal, extirpation of the ruptured organ, an attempt to stitch up the tear *in situ*, drainage of the wound and change of its position by suitable pressure, have all to be taken into consideration. Want of success not rarely depends on secondary lacerations over which we cannot, in every case, exercise any control. Some time ago, for instance, I extirpated a ruptured uterus after extracting the child out of the peritoneal cavity, and after adapting its edges, stitched the wound so far upwards from the vagina as to close completely a tear in the peritoneum extending into the broad ligament, and though the wound healed perfectly, the patient sank under a typical coli-peritonitis. It turned out that the medical attendant, after the severe rupture during an attempt to turn, had applied forceps to try and deliver the child out of the peritoneal cavity, and, with them, had injured the small intestine and mesentery, so as to lead to a complication which I had no reason to anticipate.

In regard to *treatment during the puerperium* a great reaction has taken place, and it is now generally recognised that a woman in childbed is not necessarily sick, though exhausted by strain and suffering, and debilitated by the processes of labour. If the mother is to be encouraged to nurse her child, she must be treated in a different way, more especially as regards nourishment, from that which has generally been the custom. Absolutely unanimous—and

then surely successful—co-operation by physicians and their assistants, the midwives, is here wanted to overcome prejudice and superstition which, even now, are not least prevalent in the so-called cultured classes. The *care of the new-born*, it is hardly necessary to say, has also to be considered, and here it may be remembered that there is by no means general agreement—for example, in regard to the treatment of the umbilical cord, though the discussions of the last year have, I think, induced all to abandon the practice of leaving 4 or 5 cm. of this relic of embryonal tissue to dry up on the navel of the young citizen of the world, before it ultimately falls off.

In continuing our survey we must not omit a glance at the results of obstetric technique. In spite of acrimonious discussion the *disinfection of the hands* remains an unsettled problem, though one of the first importance. In the meantime we are still too often taught by bitter experience that our ideas of asepsis and antisepsis are still very imperfect. We have got so far as to distinguish between puerperal fever and fever in the puerperium. The etiology of *the puerperium* and the difficulties of diagnosis and prognosis have been materially simplified by Doederlein and Bumm's method of examining the uterus, but as regards treatment, we are not greatly helped thereby, and experience shows so many gaps in our knowledge, that every careful observation and accurate report of puerperal disease is to be heartily welcomed.

A remarkable phase in the development of the art of obstetrics, started in the last quarter of the last century, is still in progress. It had seemed that the instrument in daily use, the forceps, needed no further modification, when Tarnier introduced the principle of *axis-traction*. His advice that the obstetrician should not retain his grip on the handles after the forceps had been firmly applied to the head, and so by traction carry out the moulding of the head at the same time as its extraction, met with much approval, and the axis-traction forceps were accepted by many obstetricians as a valuable addition to our armamentarium. I have, however, no hesitation in saying that the doubts I had as to the

necessity for this instrument, and its mode of action, at the time Tarnier gave his demonstration at the International Congress in London in 1881, have not been overcome nor, up till now, have I felt the want of such an instrument in practice. In my father's school I learned to shun the so-called "high forceps," and when the head remained movable above the brim of the pelvis, to turn the child, unless by pressure from above I could fix the head on or in the pelvic brim, and force it partially so far into the cavity that, as if it were already engaged, I could seize it with the forceps. Experiments with the axis-traction forceps on the phantom have not led me to depart from my old principles, and unless I am mistaken, the ardent enthusiasm which, even in Germany, prevailed about this instrument is diminishing, nevertheless this also is a point upon which new material and further evidence will be welcome. I am glad, however, to take this opportunity of incidentally mentioning that I have found Walcher's hanging posture very valuable in the delivery of women with contracted pelves.

The *introduction of the metreurynter* is, in my opinion, one of the most material advances made in the field of obstetric art. It is absolutely astonishing to see how promptly the bag, when passed within the os uteri, induces contractions of the uterus, and the ease of making it aseptic and the simplicity of its introduction, make it not only the proper substitute for all other methods of inducing premature labour, and strengthening feeble contractions, but an admirable proceeding preliminary to immediate delivery when the soft parts are not otherwise prepared. The experience we have had at Greifswald I think justifies me in saying that, by the use of the metreurynter, the division of the cervix with a view to delivery may be altogether avoided.

The position of *symphyseotomy* cannot be determined without further experience of its results, for on the evidence as yet available no precise indications can be laid down for its performance. Apart from the danger of the operation itself, the risk that, in spite of free separation of the pubic

bones, the head may still be unable to pass through the pelvis, must, whenever the circumference of the head is considerable and its capability of moulding limited, leave the result of symphyseotomy doubtful.

Thanks to the efforts of Saenger, the classical operation of *Cæsarean section* was rehabilitated before the close of the last century. The attempts to substitute for it supravaginal amputation after Porro's method, or the radical operation of total extirpation, are still acknowledged to be only justifiable in individual cases. Fritsch's transverse fundal incision is by many looked upon as a great advance. In any case the prognosis of Cæsarean section—whether of the uterus *in situ* or brought forward out of the abdomen, whatever form of suture be employed, and whatever other details may come into question—is so improved, that the indications for it have been enlarged to a great and very beneficial extent.

From very modest beginnings, gynæcology, during the last quarter of the century, underwent an enormous development. In it, if in any branch of medicine, one can now say with confidence that careful clinical observation and experimental research have been supplemented by the methods of pathological anatomy. As the result of the wealth of material, we have now arrived at conclusions, in regard to large sections of the field of our work, approximately satisfying the demands of the present day. I may instance the physiology and pathology, especially from a bacteriological point of view, of the mucous membrane of the genital system; and the diseases of the ovaries, their histological bases, clinical symptoms, and operative treatment, which are now among the best understood subjects of our specialty.

Nevertheless, even here many questions of not unimportant detail offer opportunities for research and experimental proof. Such are the so-called *internal secretion of the ovaries* and its influence upon the power of the uterus to adapt itself to hold the ovum; the importance of preserving the whole or even a part of one ovary when extirpating the uterus; and the still obscure question of ovarian embryomata.

to which little more has been discovered than foundations for the explanation of newer and wider observations, and the lines of advance as regards treatment.

New points of view have recently been made available for the explanation of pathological conditions of the genital organs by various observers. I may mention more especially that reference to infantile forms and arrested developments to which Hegar and A. W. Freund have attached so much significance. It remains for further observations to decide how far, on this basis, a peculiar disposition to disease, especially to *tuberculosis*, is to be recognised; how far the influence of such developmental conditions must be taken into consideration in later life. In any case it is a very remarkable fact that the number of recorded cases of genital tuberculosis has in recent years greatly increased. We are reminded of the analogous happening in regard to ectopic pregnancy, which a generation ago was still a rarity, and which to-day is recognised as an affection very commonly met with.

As regards *carcinoma*, a comprehensive demonstration of the present condition of our knowledge of its pathological anatomy and of the endeavours to base a treatment thereon, was afforded at last year's Gynæcological Congress at Giessen, and, not without pain, we were convinced that no true insight into the etiology of cancer had yet been attained. That the treatment hitherto adopted leaves much to be desired we are all agreed. A timely diagnosis of the new growth in its earlier stages may frequently be made by microscopical examination, but the clinical syndromata are too often deceptive. If we pass to the rigid examination of the final results, more especially on the principles laid down by Winter, it appears that our operative endeavours have not yet proved at all satisfactory. As is natural, the recognition of this fact has led directly to bolder attempts to increase the possible extent of our interference, and the operative treatment of carcinoma has been thereby actually removed into a totally different field. In every

instance, as at the time when Freund published his method of operation, a heavy price has had to be paid for the experience acquired. But already traces of improvement appear in the reports of Wertheim, v. Rosthorn, and Mackenrodt, and encourage us to further advances in the same direction. Two facts must certainly be always kept in view, first, that the swelling of the retroperitoneal glands in carcinoma uteri is up to the present, only incompletely within the range of detection by palpation or other methods of examination, and secondly, that even very decidedly swollen glands are by no means always to be set down as carcinomatous. The primary object for our efforts is to improve the results of operation, and that end, we may perhaps already say, we shall certainly attain. The experience of five or six years will show whether therewith we have obtained any material improvement in the permanent results. In any case the profession as a whole will not advance, as long as it contentedly leaves it to individuals to follow up this improvement in the unsatisfactory statistics of carcinoma.

This last statement is supported by a consideration of the opinions now held on the importance and treatment of *myomata* of the female genitals. It was till lately laid down as a principle that patients with myomata did not conceive, but thanks to the researches initiated by Hofmeier, this statement may be considered as disproved. The etiology of these myomata, the commonest of all new growths of the female generative organs, is still obscure. Our knowledge has, however, been materially improved by the works of v. Recklinghausen and A. W. Freund, which demonstrated the nature, previously entirely unexplained, of the adenomyomata and their connection with the Wolffian bodies. While all the researches of pathological anatomy still lead us to suppose these growths to be non-malignant, there are still many doubtful points in regard to these peculiar tumours and even individual cases offer a profitable field for study.

It is no longer as formerly thought that patients with myomata are immune to carcinomatous disease of the uterus;



sarcomatous disease is met with in from 3 to 4 per cent. of such cases, and it has been shown that in about 15 per cent. of all myomata, changes take place arising, partly from disturbed nutrition, partly from disease of some other kind. Myomata therefore should not be described, clinically, as unimportant and innocent new growths. Twenty years ago the principle drawn on this supposition was that they were not objects for operative interference, and it is a certain satisfaction to those who, like myself since 1874, have advocated a different view as to the prognosis of myomata, that a large number of gynæcologists to-day do not leave these tumours to grow to extreme size, or until they have a deleterious effect on the general condition by hæmorrhage and serious interference with neighbouring organs, before they admit the indications for operative treatment to be given. The strife still continues as to the exact time at which, from this point of view, the tumours should be removed. But it is now recognised that one cannot hope for equally assured success from any of the other modes of treatment, from ergot to electrolysis, that have been proposed. No one denies that, especially under the influence of some well-known iodine waters, climacteric involution, which must be considered as a cure, may develop in a fateful and even premature manner; nevertheless, in discussing the indications for operation, other points are admittedly quite decisive; when the tumours are comparatively small, the danger of interference is materially less and, a more important point, it may then be possible to remove diseased tissue only, and to save a portion of the uterus capable of its functions. No one denies that this way of operating has proved very full of blessing, and as the prognosis of operation is constantly improving, the advances in asepsis and technique allow us to hope that the propriety of early interference, as soon as good health and capacity for work are permanently disturbed, will be more and more generally recognised, for there is no other treatment of the myomatous uterus by which the patient can be protected from further and more serious troubles.

Up to the last decade of the century just completed the typical treatment of *displacements of the uterus*, and of the vagina also, was orthopædic. One of the most valid titles to fame possessed by operative gynæcology is the fundamental change brought about here. Examination of the results of the different operations, especially of those for prolapse, as placed on the Agenda of the next Gynæcological Congress, will show us how far the operations now generally practised fulfil what is required, and to what extent the permanent results seem to call for a further development, perhaps in the way of using the uterus as a support for the vagina as recommended by Freund and Wertheim, or in the direction of radical measures, as I have myself advised, in extreme cases in old women. But the investigation and treatment of the displacements and deformities of the uterus have, ever since the publication of the monographs of E. Martin and B. S. Schultze, been the favourite study of a large number of our colleagues, and are still subjects of constant discussion. In practice, the application of vaginal supports remains still the orthodox treatment to be adopted at first; when this has failed the fixation of the uterus is recognised as justified. Ventrofixation, Alexander-Adams operation and vaginal fixation, contest for preference. This question will, no doubt, come before us again in many discussions, and I trust that we shall take part in its solution.

If we now cast an eye on the progress of *gynæcological therapeutics*, we are at once struck by the fact that the very natural rule that the treatment of the diseased genital apparatus should not be altogether dissociated from the care of the patient's health, has become more and more generally recognised. It is, in fact, not the diseased organ but the afflicted sufferer that should be the object of our treatment. A further, and surely very remarkable, improvement is due to the fact that the accusation of polypragmasia to which, not without some foundation, gynæcologists were long subjected, has had its effect. Just as we shudder at the idea of repeatedly making internal examinations

during a natural labour, so, in the treatment of diseases of the mucosa, of inflammatory processes in the genital organs, of displacements, &c., we now deem it quite unnecessary to submit the patient to daily examination with sound and speculum, and too frequently repeated local treatment. In gynecology, as in all branches of medicine, special methods are, at longer or shorter intervals, recommended and praised as panacea, to be sooner or later entirely abandoned, or to receive a reserved approval as additions—often not altogether unobjectionable—to our therapeutical resources.

I may remind you of the *massage of the internal genitals*, the indications now maintained for which are very restricted indeed; and also of *electro-therapeutics*, of which, except in very limited manner, we hear very little nowadays. In my opinion *atmocausis* exhibits a similar limitation and, according to the observations before us will, like many proved styptics, remain embodied in our armamentarium as a useful means of dealing with certain forms of hæmorrhage, but hardly as a method for general use.

Such experiences of course do not relieve us from the onus of thoroughly trying new methods, and, in this connection, we may perhaps allude to the attempts of Fliess, to act on the sphere of the genitals by the treatment of certain parts of the nasal mucosa, and also the method of treatment by weights (*Belastungstherapie*), the full range of which cannot yet be estimated. Every recorded observation will be a welcome help to elucidate these questions.

A peculiar mutability may be noticed in the field of *operative gynecology*. The methods employed for many years were exclusively vaginal, but with the development of laparotomy, this operation passed to the domain of gynecologists who extended the indications for it in many directions, indubitably with great advantage to their patients. We not only learned how to deal with voluminous new growths of the ovary, uterus, and tubes, but the abdominal route has rendered possible, to a marvellous extent, the treat-

ment of inflammatory processes of the peritoneum and internal genital organs, of retroperitoneal affections, and finally of diseases and injuries of the uropoietic system. The more extended the material for observation grew, the less could we overlook the fact that, though the division of the abdominal walls undeniably gave remarkably favourable operative results, its permanent effects were very doubtful. Stretching of the abdominal cicatrix, the first disadvantage to suggest itself, has certainly been greatly lessened by improvements in the technique of suture, but we must still allow that this stretching of the abdominal cicatrix cannot invariably be prevented, and the possibility of its occurrence will always be one of the objectionable sides of this mode of operating. Apart from this, opening the peritoneal cavity compromises the patient in another way entirely beyond our control. We cannot with any certainty exclude the formation of adhesions between the intestines and the internal aspect of the abdominal wound, any more than between the abdominal viscera themselves. We cannot pretend that these disadvantages are not attached to laparotomy as such, not to mention the imminent dangers inherent to an infected field of operation, to extensive and very firm adhesions, to drainage, to extra-peritoneal treatment of the stump, and to stitch abscesses. The recognition of these facts has smoothed the way to the significant prevalence of vaginal operations. The shy methods of approaching the peritoneal cavity from the vagina, employed in former years, have been again brought to trial in the most unexpected way by the courageous proceedings adopted by Dührssen and Mackenrodt in operating for retroflexion, and it has been shown that the pelvic cavity can be very freely explored by opening the anterior or posterior vaginal vault. New growths and foci of disease situated in the pelvis can be brought within range of view and palpation, and even structures that have grown up into the abdomen, such as the uterus in advanced pregnancy, have proved susceptible of treatment from the vagina. This route though difficult and tedious, is nevertheless becoming more

and more generally adopted, and the more naturally so, as it indubitably appears that vaginal operations are decidedly less fatal than abdominal ones. If insuperable difficulties are met with in the completion of a vaginal operation, nothing stands in the way of proceeding at once to a supplementary laparotomy, with which the vaginal wounds, in the vast majority of cases, do not in the least interfere. Accidental injuries of neighbouring parts will become rarer and rarer with the growth of technical experience.

We still stand in the midst of a war of opinions, and the advantages of vaginal operations, muddled as they are by many, are still denied. But when with increasing experience we have attained a greater freedom in this method of operation, there can be no doubt that the indications for abdominal coeliotomy will become more and more restricted, especially from regard to the peculiar dangers, indubitably inherent in the abdominal operation as such, to which I have just alluded.

I have shown you what an enormous field for earnest work and thorough-going investigation is open to us. I trust that by meeting here to discuss our work and researches, and to submit their development and results to the examination and criticism of our colleagues, by our combined and effective endeavours, we shall not merely improve ourselves and our science, but successfully serve the ideal aim of our professional calling, the good of mankind.

## CORRESPONDENCE.

## CHANGES IN THE ARTERIES OF MYOMATOUS UTERI.

*To the Editor of the* BRITISH GYNÆCOLOGICAL JOURNAL.

SIR,—In the report of a paper on “Fifty Laparotomies,” published in the August Journal, Dr. Bedford Fenwick very courteously refers to a small contribution of my own on certain changes observed in the arteries of myomatous uteri. He considers that these changes are “a direct consequence of the fibroid change in the uterus; that, in fact, the change is strictly analogous to that which takes place in hypertrophy of the heart’s muscle in cases of valvular stenosis, or in the muscles of any other part of the body when they are called upon to overcome a greater amount of resistance than usual . . . . It appears to me that the muscular coat of the uterine arteries becomes thickened and strengthened in order to meet the stress and strain thrown upon the vessels.”

May I say at once, that this explanation appears to me to be an eminently justifiable one, and that if I do not accept it at once, it is only because I see certain difficulties to which I ask his attention.

I may also, perhaps, point out that I drew attention to these appearances in a purely tentative way, requesting rather the opinions of members of the Gynæcological Society than as founding any dogmatic theory upon them; although they seemed to me to point the way to some clearer idea of the earlier changes which eventuate in the formation of these tumours; and that I welcome very sincerely his expression

of opinion as calculated to initiate the discussion I hoped to elicit.

As to the difficulties I see in the way of acceptance of his explanation, they are these: First, if these arteries are hypertrophied in *consequence* of the previous fibroid change, why do we not find all, or at least many, of the uterine branches in such a condition? It is a fact to which I drew attention at the time, that all uteri in which fibromyomata are present do not show them; or at least that after a careful search I have not been able to find them—a very different thing, I admit, but still a rather curious fact; nor do all, or indeed the majority, of the arteries in a uterus which does show them here and there, present any hypertrophy at all.

Second, if this hypertrophy were consecutive, surely the whole extent of that artery and the trunk from which it arises should show the same changes. So far as my observations go, this is certainly not the case. The hypertrophy appears to be curiously localised; and localised, not merely in the length of the artery, but even in its wall. The first may be seen to some extent in fig. 6, the latter in fig. 5, and notably in fig. 2, of the illustrations accompanying my paper (*ante*, February, 1902, pp. 286). Such irregular hypertrophies do not suggest to my mind a consecutive development of the muscular wall, such as is seen in the correlative instances which Dr. Bedford Fenwick adduces. As to why these irregular hypertrophies occur, I do not at present hazard any opinion, but no doubt additional light will be thrown upon them by Dr. Fenwick's reply. I am very glad that he has given me the opportunity of submitting one or two of my difficulties to his maturer judgment, and shall look with much interest for his next communication.

I am, Sir, yours sincerely,

E. STANMORE BISHOP.

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20, Upper Wimpole Street, London, W.

September 22, 1902.

SIR,—I have to thank you for your courtesy in sending me a proof of Mr. Stanmore Bishop's letter to the **BRITISH GYNÆCOLOGICAL JOURNAL**.

I am entirely in agreement with Mr. Bishop's estimate of the importance of the vessel changes in cases of uterine myoma, and venture to believe that our Society in particular is much indebted to him for drawing attention to the subject, and for the excellent illustrations he has given us of the pathological changes in question.

I cannot presume to trespass on your valuable space to any great extent, and as the subject is better fitted for an open discussion in general meeting of the Fellows, than by correspondence in our quarterly Journal, I must content myself by very briefly replying to the points raised in Mr. Bishop's interesting letter.

He asks: "If these arteries are hypertrophied in consequence of the previous fibroid change, why do we not find all, or at least many, of the uterine branches in such a condition?" Curiously enough, this is a fact which, I well remember, specially attracted my attention twenty-five years ago, and which either suggested or confirmed the conclusions and explanations at which I arrived. Briefly, it was in the arterial branches which traversed, and which supplied, the myomatous zone, if I may so call it—that is to say, the part of the organ which contained the most definite fibroid thickening—that I found the muscular walls of the vessels markedly hypertrophied. In other words, it was precisely in those vessels upon which the strain of the circulatory difficulty came, that I found the increased power, or *vis a tergo* supplied.

As to the second point raised by Mr. Bishop, my memory affords me neither confirmation nor refutation, but the statement of so careful an observer may be confidently accepted; and I would venture to point out that the fact of "localised hypertrophies" of the vessel wall strongly supports my



theory; for where the greatest contraction of the artery's calibre by surrounding myomatous thickening occurs, there and behind that spot might the greatest effort of Nature to overcome the resistance be expected. Then, again, the nodule outgrowth tends to twist and curve the original course of the arteries, often at a sharp angle. There is, in fact, a further mechanical obstacle induced at a number of such points, and here, again, I would expect to find some "localised hypertrophy" to overcome the localised resistance. I would submit these considerations to Mr. Bishop in no dogmatic spirit, because at best they are theoretical. But they appear to me to stand on all-fours with a great and accepted mechanical principle—that Nature proportions the muscular forces of the body precisely to the demands which they are required to supply.

I am, Sir, yours faithfully,  
BEDFORD FENWICK.

*REVIEWS.*

GRUNDRISS ZUM STUDIUM DER GEBURTSCHUELFE. By Dr. ERNST BUMM. Demy 4to, pp. xii. and 766, with 575 illustrations. Wiesbaden: J. F. Bergmann, 1902; Glasgow: F. Bauermeister. Price 14s.

It is many years since we derived as much pleasure in reading any work on midwifery as we have done from the perusal of the volume before us. The author of it, Dr. Ernst Bumm, has been well known to the profession since 1885, in which year, while still assistant to Scanzoni at Wuerzburg, he published his well-known monograph on "The Micro-organism of Gonorrhœal Affections of Mucous Membranes." He has now for some years held the responsible post of director of the Frauenklinik in the University of Halle, and has been led to publish the present work from a feeling that the books on obstetrics hitherto published in Germany were not sufficiently illustrated. That the bringing out of a profusely illustrated work on midwifery is no new idea with him, is shown by the fact that during many years he has himself, with the aid of the callipers and tape measure, made hundreds of accurate drawings of the various conditions that he considered lent themselves best to illustration. These original drawings he has, for the purpose of publication, handed over to a skilled young artist, Herr Albrecht Mayer, who after several years' work produced the life-like pictures with which the book is so profusely illustrated. To these have been added about 50 other illustrations, some of which are already well known, and a number of microscopic illustrations, nearly all original, such as the mucous membrane of the uterus on the second day of menstruation, the entrance of the chorionic

villi into the decidua serotina, the separation of the placenta and membranes from the uterus, and the minute structure of a chorionic villus, &c. We can well understand that, as the author tells us, the production of the illustrations has given him more anxiety and trouble than the writing of the letter-press.

The book itself is a most unqualified success: the newest settled views are given shortly and clearly, while a few well chosen sentences put us in possession of the various theories still held on disputed points, generally followed by an indication of the direction in which a solution of these is to be looked for.

It is impossible, in the space at our disposal, to give any thing like a criticism of such a work, and we must content ourselves with noticing some few points which seem of special interest, or which illustrate the difference between the practice in Germany and that usually followed here.

The two most important things in midwifery are, in the author's opinion, antiseptics and the method of conducting the third stage of labour. Subjective antiseptics of course come first, and to the question of the disinfection of the hands the author pays special attention. The difference between the ordinary practice in this country and the views of the advanced teachers in Germany are well brought out by this subject. Dr. Bumm adopts the method of Fieberbringer for disinfection of the hands. Most English practitioners will be astounded at the time required for this disinfection, viz., twenty minutes—ten minutes for the soap and water washing, and five minutes each for the disinfection with alcohol and corrosive sublimate. We have been in the habit of trying to impress the ten minutes' rule on students, viz., five minutes with soap and water, three minutes with alcohol, and two minutes with corrosive sublimate solution, and have always told them that unless they used a watch they would give up long before the time had really elapsed. We confess we think it will be found very difficult to introduce a twenty minutes' disinfection of the

hands into English general practice. There is more hope that the alternative for this process, viz., the use of sterilised india-rubber gloves, may find favour. These can be sterilised with the dressings, and kept wrapped up in gauze till required. That such a practice would lessen the mortality from puerperal fever, and make ordinary convalescence run its natural afebrile course, cannot be doubted.

The external palpation of the abdomen, illustrated by most instructive plates, is a great assistance in conducting labour aseptically. By it the number of vaginal examinations may safely be reduced to two, one before the rupture of the membranes, to judge of the dilatation, and the second after it, to detect a possible prolapse of cord or hand. Bumm agrees with Leopold that in a great many cases the practitioner who understands external palpation may often conduct a labour quite safely and satisfactorily without making any vaginal examination at all.

The objective disinfection of the patient, the author considers, may generally be confined to the external genitals, but this disinfection is to be as thorough as is usual before any gynæcological operation on the vagina or uterus. All instruments should be sterilised by boiling, and if there is time he makes it a rule to have a number of sheets, towels, night-shirts, &c., sterilised and kept in a large linen-lined basket till labour comes on.

If we now turn to the conduction of the third stage, which our author considers of almost equal importance with the use of antiseptics, we find that he favours a passive attitude, in contradistinction to the active treatment introduced into Germany by Professor Credé about the year 1854, to a known almost universally as Credé's method. Now several may be the advantages of this method over the older the traction on the cord over the fingers of one hand added and into the vagina, the credit of its introduction into all knowelongs to the Rotunda Hospital, Dublin, where it of origin, in use so long that no one claims to have second it. On page 221 of Hardy and McClintock's

"Midwifery," published in 1848, when speaking of the treatment of post-partum hæmorrhage, before the expulsion of the placenta, the authors say: "Having placed the hand on the fundus uteri, friction and slight pressure are to be made, and if the amount of contraction thereby induced be not sufficient to repress the hæmorrhage, it will be necessary to expel the placenta from the cavity of the uterus. In doing this the organ must be grasped firmly, and pressure exerted upon it in the axis of the brim of the pelvis. If the uterus has fallen to the left side, as not infrequently happens, it must be raised into its natural position before commencing to exert compression upon it. It will also tend much to the success of the manipulation if it be performed during the presence of uterine action; indeed we have sometimes been surprised at the ease with which the placenta was pressed off during a contraction of the uterus, when previously it had withstood our best-directed efforts. These measures we have seldom found to fail in getting away the placenta, unless it be morbidly adherent . . . . In no case have we observed the practice to be followed by any ill effects; and it must, we think, be conceded that it is immeasurably safer to remove the placenta in this way than by introducing the hand for its extraction."

When, on Credé's recommendation, this method was applied in Germany to every ordinary case of labour, it was soon found that it was not unaccompanied with danger, and a reaction, headed by Professors Dohrn and Ahlfeld, set in in favour of the passive method of treating the third stage of which Professor Bumm, with whom personally we thoroughly agree, is an ardent supporter. In giving his reason for adopting this method he goes fully into the mechanism of this stage. He holds that the site of the placenta does not contract during labour like the rest of the fundus; that when the child is born the placenta is still entirely adherent, and that it is the subsequent contractions and retractions of the uterine wall that first separate and then expel the placenta from the uterus. He thinks that the

commonest method of expulsion is that with the edge of the placenta in front (Matthews Duncan), and not that by inversion of the placenta through the rupture in the membranes (Schultze); yet that sometimes these two methods may be combined.

Once the fundus becomes flattened from before backwards, this change in the shape of the uterus may be taken as proof that the placenta has been expelled into the vagina and once the placenta is in the vagina uterine contraction or retraction has then no more influence on it, and if the woman cannot expel it by bearing down, our author sees no objection to assisting its expulsion from the vagina by gentle traction on the cord and pressure on the fundus. He advocates the time-honoured practice of rotating the placenta a couple of times with the object of ensuring the easy and complete separation of the membranes. For many years we have allowed the placenta to peel the membranes off the inside of the uterus by its own weight, and are becoming more and more satisfied that this is the most natural, and therefore the best method. A careful examination of the placenta should then be made, and any suspicion of a portion being retained calls for the introduction of the hand into the uterus for its removal. The retention of a portion of the membranes, on the contrary, calls for no treatment, as it does not constitute a danger to the patient and will be expelled spontaneously in a few days. The condition of the uterus with regard to contraction and retraction should be controlled by the hand for a period of at least two hours, even after a normal labour. He recommends as a binder an elastic bandage about 20 feet long and 6 inches wide, to be re-applied twice a day, beginning from the hips, upward.

The chief point in the treatment of the patient during convalescence is the avoidance of all interference with the internal genital organs; but the external genitals should be douched twice a day with corrosive sublimate solution, as ordinary routine, and also after each motion from the bowel or emptying the bladder, and a sublimate pad should be placed over the vulvæ and renewed regularly.

In the chapter on the presentation, position, and posture of the foetus, he fortunately does not use the German word *Einstellung*, as well as the words, *Lage*, *Stellung*, and *Haltung*, the former word having led to utter confusion in the English translation of a recent well-known German Midwifery.

The chapter on contracted pelvis is one of the best in the book, this difficult subject being made almost easy by the clearness of the description and the wealth of illustration. Two radiograms taken during the puerperal state, by Dr. E. Wormser, of flattened rickety, and pseudo-osteomalacic pelves, demonstrate the great usefulness of this application of the Röntgen rays in midwifery. The diagnosis of contracted pelvis may be much helped by the anamnesis, by a pendulous abdomen, by a careful general examination of the patient, and by observing the course of labour during non-fixation of the head in the brim, especially in first cases, and by prolapse of the cord or other malpresentation.

The chapter on puerperal fever is admirably clear and well arranged. The author of course distinguishes intoxication from infection. The latter is, he thinks, nearly always due to the presence of the streptococcus. The great variety of the symptoms and gravity of different cases is accounted for chiefly by the increased or diminished virulence of the streptococcus itself, and only very secondarily by the amount of the dose or locus of inoculation. The cases most amenable to treatment are of course those where the disease is localised in the vagina and uterus, especially when the symptoms are due to the retention of pieces of placenta or blood clots. He thinks it is better to wash out copiously once, with from 10 to 20 litres of a 1 per cent. solution of carbolic acid or lysol, than to irritate the parts by repeated injections of smaller quantities. He abandons all local treatment once the symptoms point to a general infection, as he has seen the curetting of a septic endometrium followed frequently by pyæmia, and even by fulminating peritonitis.

In cases of bad septic endometritis, phlegmasia alba, and

pure septicæmia without localisation, we may hope for some help from the antistreptococcus serum, but seropathy has been shown to be useless in general peritonitis, pyæmia, or parametritis with formation of pus.

Operative treatment, too, has led to good results in suitable cases, such as encysted collections of pus within the peritoneum, sloughing fibromata, or retention of a putrid placenta. In this connection he mentions a most instructive case in which quite lately Trendelenburg cured a chronic puerperal pyæmia by ligature of the spermatic vein, after ligature of the hypogastric vein on the same side had proved a failure. In cases of septic affection of the adnexa operation is useless.

The *Bacterium coli* and the bacilli of tetanus and diphtheria hold a sort of intermediate position between the pure decomposition bacteria and the organisms capable of invading the tissues; for while they enter the tissues just far enough to be removed with difficulty, they poison the body by the absorption of their specific toxines.

The only part of the book to which any exception can be taken is the chapter on obstetric operations. Though these are undoubtedly best taught by the use of a good phantom and pelvis, still in the absence of these, a very satisfactory idea may be obtained by studying good illustrations of them. But while the text is short and clear the illustrations are neither numerous nor, in our opinion, always well chosen or well carried out. The plate illustrating Schultze's method of treating infantile asphyxia also, is not quite up to the rest of the book, but these are very small blemishes when the high general standard of the rest is taken into account.

In conclusion we can only express a fervent hope that some publisher will put us in possession of an English translation of this work, which though professing to be an "Outline for the Study of Midwifery" will do more to lessen the danger and lighten the suffering of childbearing women than many more ambitious "Treatises."



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NOVEMBER 13, 1902.

MR. MAYO ROBSON, A PAST PRESIDENT, IN THE CHAIR.

## SPECIMENS AND CASES.

UTERINE MONOMA ("SOFT ŒDEMATOUS MYOMA" OF LAWSON TAIT), COMPLICATED WITH THREE MYOMATA OF THE ORDINARY TYPE. By HERBERT SNOW, M.D. Lond., &c., Senior Surgeon, Cancer Hospital.

I INVITE the attention of the Society to a specimen which, if not unique, at any rate shows an extremely rare condition, and I doubt if anything similar has been previously exhibited here.

It will be remembered that Lawson Tait strenuously insisted upon the fundamental distinction between the solitary uterine tumour, which he designated "soft œdematous myoma," and for which I have lately ventured to propose the more convenient term "Monoma," and the common uterine fibroid, or fibro-myoma. He pointed out that the monoma was always solitary; was always steadily progressive towards death, which it caused within a short term of years; was accompanied by severe and continuous hæmorrhage; was

more painful, and attended by relatively acute symptoms. On the other hand, the much more prevalent uterine myoma is always multiple, need not involve any symptoms whatever, slowly grows throughout a very prolonged period, is never fatal except indirectly, as by bulk or degenerative phenomena. There is thus a wide gulf, clinical and pathological, between the two varieties.

In the specimen before you both forms of tumour are found to coexist. We have a round, softish, central mass as large as the foetal head, giving rise to obscure fluctuation, which indeed was so marked that a colleague who assisted me at the operation urged me, after the abdomen had been opened, to insert a trocar before proceeding further. When I first saw the case in the out-patient room I regarded it as an ovarian cyst complicated with fibroids; though as soon as the patient was anæsthetised I had no difficulty in diagnosing a solid growth. Then, with this you see multiple myomata of the ordinary pattern, solid and firmly organised.

The texture of the large monoma is soft, very vascular, and embryonic. The finger can readily be pushed into the soft pulpy tissue. At each corner of the fundus is a hard, tough myoma of the size of a small orange, sessile and interstitial. Behind one of these is another, smaller, attached to a thin pedicle.

The microscope shows the monoma to consist of non-striped muscle-fibre, with large nuclei, and very numerous leucocytes; to be, in short, much more embryonic in structure than the ordinary myoma, and to be passing into myosarcoma.

CASE.—Emma F., aged 42, married, four children (had had a miscarriage), admitted into the Cancer Hospital, August 23, 1902. A ruddy, robust-looking country-woman, wife of a miller. Previous good health; last child born thirteen years previously. No family history.

The symptoms were of four years' duration. For a long time there had been almost incessant vaginal hæmorrhage, so the patient stated, though there was nothing in her aspect

show this. Severe aching lumbar and abdominal pains, worse at the periods, and with movement. A huge irregularly-shaped mass distended the abdomen. Some of the tumours were hard, but one appeared to fluctuate. They were mobile and slightly tender on pressure. The growth was rapidly increasing in bulk.

On incision there were no adhesions, but the veins of the broad ligament on each side were enormously distended, and all the tissues highly vascular. The mass was dissected out from the cervix by the flap-operation, the flaps being subsequently sutured. It was necessarily prolonged, in view of the vascularity, as well as of the fact that the growth was deeply lodged in the pelvic cavity, and could be only partially delivered. The abdominal wall was closed in two layers, after a pint of saline fluid had been poured into the cavity. The next day the house-surgeon found an excessively frequent pulse, and injected a pint of saline fluid into the rectum with much benefit. Recovery was subsequently uninterrupted. The patient was discharged well on October 11.

The CHAIRMAN said that Dr. Snow's specimen was undoubtedly of extreme interest; it was very rare to have a combination of these two forms of tumour; in the absence of his notes he would make no assertion he had seen such a combination himself, but he thought he had done so.

Mr. BOWREMAN JESSETT did not think that even the soft oedematous myoma was as common as one might suppose from Mr. Lawson Tait's account, but he had seen one or two cases in which a soft myoma, inside the uterus, was associated with other fibroids outside.

Dr. MACNAUGHTON-JONES suggested that the specimen had the appearance of a large fibrous tumour enclosed in a capsule, with isolated interstitial growths also encapsuled. Degeneration in the separate growths might account for differences in consistency, and, with Dr. Snow's acquiescence, it would be well to refer the specimen for section and further examination.

Dr. SNOW, in reply, said that among the many cases

which he had had the advantage of seeing Mr. Jesse operate upon, there had been certainly two or three in which a large myoma, of the ordinary type, in the cavity of the uterus, had been associated with smaller ones elsewhere. The condition was totally different from that here presented. So far as he was aware his specimen was absolutely unique. The late Mr. Lawson Tait evidently had not met with or heard of one instance in which the "soft solitary oedematous myoma," the monoma as he (Dr. Snow) had called it had been associated with multiple growths of the ordinary myomatous type. He readily concurred in the suggestion made by Dr. Macnaughton-Jones.

Dr. H. MACNAUGHTON-JONES showed the following specimens:—

(1) ADNEXAL TUMOUR WITH ENLARGED APPENDIX ATTACHED, THE LATTER CONTAINING CONCRETIONS.

The diagnosis of adnexal inflammation and disease from appendicitis and appendicular growths and enlargements is frequently a most difficult matter. In some cases it may be, as in the case I am reporting, impossible. Nor, when both structures are involved pathologically, and, as in my case, firmly connected, can we say whether it was in the adnexa or the appendix that the primary mischief commenced. The lesson all such complications teach us is that when acute symptoms set in in the region embracing the appendix and the right adnexa, and these symptoms persist, with the physical signs of pain and swelling, early operation is called for. The specimen I show was removed from a widow, aged 36, who had had four pregnancies and one miscarriage. The last pregnancy was six years since. Her first trouble was an attack of peritonitis eight years ago, followed after a little time by some paroxysmal pain, vomiting and jaundice. Four years later there were repetitions of these attacks, the pain always confined to the right side, and during the last five years she has been on and off a sufferer, with difficulty in

alking, gradual loss in weight, and some associated vaginal discharge. The catamenia were regular, but of late rather scanty. On examination, a large and movable kidney was detected. Pressure over the right groin caused pain, and vaginal examination detected ovarian enlargement and sensiveness at both sides. The patient was very anæmic, and there was a discolouration, of late increasing, similar to that found in cases of disease of the suprarenal capsules (*morbus Addisonii*).

I advised coeliotomy, and as there was some discussion with regard to the expediency of the operation, I put my reasons for advising this in writing. Operation being decided upon, it revealed an adnexal tumour with adhesions at the right side, the ovary, tube, and appendix being all united, the former cystic and firmly joined to the appendix, which was thickened to about the size of a finger, nodular in character, and containing two large black concretions as hard as stone. One of these is seen suspended free in the prepared specimen, and the other occupies the lumen of the appendix. The patient has increased over a stone in weight since the operation, and all her symptoms have disappeared. An interesting point is the disappearance, almost completely, of the brown facial discolouration. She has been through a Weir-Mitchell course, and has been taking hydriodic acid and syrup of iodide of iron. She is now having adrenalin.

(2) A LARGE BLOOD-CYST OF THE RIGHT OVARY, WITH LEFT CYSTIC OVARY AND HYDROSALPINX.

These adnexæ were removed from a married woman, aged 29. She had had two children and one miscarriage. The first pregnancy occurred twelve months after marriage, and the second eighteen months later. Shortly after her miscarriage, nine years ago, she was curetted for some recurrent hæmorrhage, and appears to have worn pessaries on and off ever since, for an assumed retroversion of the uterus. Great pain, however, continued, and for this she

was treated with morphia suppositories, having had as many as eight suppositories in the day. The first attacks of pain occurred at the right side, but for several years the pain had been diffused, and for a considerable time she had an offensive vaginal discharge. The catamenia were regular, but very profuse. Her difficulty in walking was due partly to pain, and partly to the feeling of prolapse. There was considerable pain also during defæcation. Constipation followed, and five years since she was operated upon for hæmorrhoids. There were no bladder troubles. On examination, the uterus was found fixed and pushed forwards by a large swelling in Douglas' pouch. The patient was much emaciated and in a wretched state of health. Her recent medical adviser had enforced rest, stopped the suppositories, and used douches. On opening the abdomen with a comparatively small incision, I found the pelvis in great part occupied by a fixed tumour, evidently distended with fluid. Having enlarged the incision, I succeeded after a short time in isolating the large cyst, and delivering it without rupture of the sac. On delivery of the sac, after section of the pedicle, the fluid, some of which escaped, was found to be blood. The Fallopian tube was adherent and flattened out on the surface of the sac so as to give it the appearance of a hæmatosalpinx, for which, indeed, I mistook it, until subsequent examination proved it to be a blood-cyst of the ovary. There was, as you see, a very broad pedicle, which was ligatured in two portions. At the left side I found a large cystic ovary and a hydrosalpinx. These were removed, the pedicles at both sides were covered, and then the uterus was fixed anteriorly to the fascia, the abdomen being closed with the usual triple sutures. The patient made an admirable recovery.

Dr. MACNAUGHTON-JONES said this second specimen illustrated the necessity of careful pathological examination. When he removed it he took it to be a hæmatosalpinx, as also did Mr. Targett when he first saw it, though on more careful examination he found it to be a blood-cyst of the

ovary. It was a moot point in cases of the kind, whether it was better to remove the uterus or not. In this instance the uterus was small and perfectly healthy, and he thought the better course was to fix it to the abdominal fascia.

Mr. CHARLES RYALL, who was present when the first specimen was removed, said the way the appendix was attached, not only to the Fallopian tube, but to the ovary and surrounding parts, was remarkable. He related a case of double pyosalpinx after an attack of pelvic cellulitis and peritonitis, upon which he had himself operated two days previously. When he examined the case he came to the conclusion that the appendix was involved, and at the operation, after separating extensive adhesions, he found a long appendix, distended at its extremity beyond a stricture, lying on an enlarged Fallopian tube containing pus, and adherent to the right cornu of the uterus. The other tube also was affected, and both were removed with the appendix, and the patient was now doing well. It seemed to him more probable that in this instance the appendix was affected after the tubes, than that disease in the right tube, due to infection from the appendix, had afterwards extended to the left one.

Mr. JESSETT had met with several instances in which the appendix was involved in adnexal trouble, as indeed he had mentioned in the paper he read before the Society at their last meeting. In one case the appendix was adherent to the fimbriated body, in another to the ovary, in a third to the right tube, while in one, in which there had been a former operation by another surgeon for pyosalpinx, the appendix was found attached to the stump of the old operation. In all such cases he thought that the symptoms of appendicitis were very severe, but, as Dr. Macnaughton-Jones had more than once laid down, it was well to examine the appendix in all operations for adnexal trouble.

The CHAIRMAN (Mr. Mayo Robson) had met with at least three cases similar to the one under discussion. He recently removed the appendix attached to the stump of a uterus removed twenty years ago by an eminent London

gynæcologist; there had been recurrent attacks of appendicitis during the whole of that time and there were extensive adhesions. In another patient, extremely ill a week after her confinement and supposed to be suffering from puerperal mischief, he found a suppurating appendix fixed to the tube and ovary, both of which were involved in the abscess; the suppuration extended half-way down the tube, which was firmly glued to the ovary. In all cases where there was pain in the right ovary unaccounted for by marked disease, and tenderness between the anterior spine and the umbilicus, one should examine the appendix, and the association of appendicular disease was one reason against vaginal operation for adnexal affections. He thought Dr. Macnaughton-Jones had been quite right in not removing the uterus in his second case.

EXTRAPERITONEAL HÆMATOCELE DUE TO AN ECTOPIC PREGNANCY IN LEFT BROAD LIGAMENT WITH SECONDARY RUPTURE INTO PERITONEAL CAVITY: OPERATION, RECOVERY. By ROBERT O'CALLAGHAN, F.R.C.S.I., Surgeon to the French Hospital in London.

The patient, aged 33, was admitted to the French Hospital on October 20, suffering from abdominal pain.

*Condition on admission.*—The patient complained of great pain in the lower part of the abdomen, which had been present for a month before admission. She said she had always been regular, but had lost very little the last two periods, and that she was perfectly well until a month before admission, when she was suddenly taken ill with violent pain in the abdomen after having been out for a walk. A doctor was at once sent for, who diagnosed a ruptured ectopic gestation.

*On examination.*—A large solid tumour was discovered round and smooth except on the left side, where a lump about the size of a large orange could be felt. This tumour presented the appearance of a uterus three months pregnant.



There was great tenderness on palpation, especially on the left side. On examining the breasts, the primary areola could be clearly distinguished and milk also squeezed from the breasts. *Per vaginam*, there was a bulging down of the left fornix of the vagina, and this bulging was found to be continuous with the tumour felt in the abdomen. The patient was very constipated, and the bowels were opened by means of enemata.

*Course of the case.*—After the administration of enemata the lump which was found on the left side of the tumour disappeared, showing that it was most probably caused by an accumulation of fæces. The patient continued to complain of great pain in the abdomen, and on October 28 there had been no passage of fæces or flatus for twenty-four hours. The pulse ran up to 142 per minute and the temperature to 102°. The patient became blanched and the respirations quickened and sighing in character. Vomiting also set in. A diagnosis of intestinal obstruction was made, and when I arrived at the hospital the woman was very ill, but ready for operation.

On opening the abdomen below the umbilicus, the first thing found was fresh arterial hæmorrhage, the tumour then presented with the left tube on top of it dark in colour and congested. The tumour proved to be an extraperitoneal hæmatocele in the left broad ligament, which had moved over to the middle line, pushing over the uterus. The broad ligament was opened up at the point of secondary rupture. The blood-clot (about two pints in all) was removed, and the gestation discovered in the middle of it; this was somewhat of the shape of an acorn-cup about the size of a walnut, with rough jagged edges, where it had ruptured. The placenta was easily peeled off its attachment inside the broad ligament. The cause of the intestinal obstruction was the pressure of the blood-clot on the intestine which completely blocked the rectum.

A peculiar feature of the case was the presence of a coil of small intestine tightly glued to the fundus of the uterus

by an apparently congenital band resembling a mesentery, with the absence of any appendage on the right side.

The abdominal cavity was well washed out with very hot water, temperature  $112^{\circ}$ , until the fluid came away perfectly clear. The edge of the broad ligament was then sutured to the abdominal wound, and the whole cavity plugged with cyanide gauze; the abdominal incision then closed up. The plugging was removed in forty-eight hours, after which some slightly blood-stained fluid came away. The patient has made an uninterrupted recovery, the wound having healed firmly.

*Remarks.*—This was a case of primary rupture into the broad ligament, attended by such a large amount of hæmorrhage as to cause complete obstruction of the bowel. The interference (enemata, &c.) necessary to relieve this obstruction, together with the vomiting, which became stercoraceous, caused rupture of the broad ligament, with fresh hæmorrhage into peritoneal cavity, and active operative measures were required to save the patient's life.

Cases of extraperitoneal hæmatocele rarely reach this state of tension, and generally cure themselves by absorption in time; but on page 32 of Tait's "Lectures on Ectopic Pregnancy" I find he describes a very similar case. In connection with this I should like to mention the pleasure I received in reading Dr. Cullingworth's Bradshaw Lecture, in which he gives credit to Lawson Tait, to whose brilliant surgery we owe all we know of ectopic gestation.

Dr. MANSELL MOULLIN said that the case was one of extreme interest, as the occurrence of extraperitoneal hæmatocele had always been debatable, and even Mr. Lawson Tait said any such would be small, and therefore not require operation. It was certainly a very rare event, and one he had never met with in his own experience, and except as a very limited effusion from an intraligamentary gestation, he was inclined to doubt its existence. As the patient had recovered, they had no convincing evidence before them.

Mr. FURNEAUX JORDAN concurred that extraperitoneal hæmatocele was non-existent or extremely rare, and said he had never met with rupture of a tubal pregnancy in the broad ligament, and could not understand how a hæmatocele there could extend over the top of the uterus in the way described.

Dr. EDGE referred only to the method of treatment. He had himself in days gone by packed a cavity in the way described, but thought that with the modern advantages of asepsis and technique, it would be better to find and tie the bleeding points, or even the uterine or ovarian arteries, and close the cavity with a continuous suture before closing the abdominal wound.

The CHAIRMAN said he sympathised with Mr. O'Callaghan in regard to his case, for in one in which he had made a diagnosis of extrauterine gestation he was afterwards summoned and found a hæmatocele of the left broad ligament. If there had been in that case a secondary rupture of that broad ligament into the abdominal cavity, such as described by Mr. Lawson Tait, he certainly would have felt justified in opening the abdomen. He thought it was possible to have the exact condition, described by Mr. O'Callaghan, from rupture of the tube into the broad ligament and secondary rupture into the abdominal cavity. He was very glad to hear Mr. O'Callaghan refer to Dr. Cullingworth's recognition of Lawson Tait. One knew that good work would always come to the front at some time, and it would surely give great pleasure to every Fellow of the Society to know that the excellent work of one of their old Presidents who had now passed over to the majority, which had been fully appreciated by the Society all along, was now generally recognised.

Mr. O'CALLAGHAN, in reply, regretted that the specimen had been accidentally destroyed; obviously he could not bring the broad ligament for their inspection, but he was certain the condition was as he had described it. The profuse hæmorrhage was due to secondary rupture, the exten-

sion of the hæmatocele over the fundus of the uterus to the mesenteric band, which he took to be congenital anomaly; there was neither ovary or the tube on the right side. Mr. Tait did the same operation in the same way, and mentions in his book on "Ectopic Gestation" exactly similar cases, from one of which he removed as much as a quart of blood-clot, when Mr. O'Callaghan had the good fortune to assist him. This patient had been for some days in hospital without thought of operation, when signs of fresh hæmorrhage came on; sighing respiration, a pulse of 142, and a temperature of 102° indicated immediate intervention, but in her condition it would not have been wise to prolong the proceedings by attempting to find all the bleeding points. Packing the cavity with cyanide gauze answered very well; she had no rise of temperature after the operation, and made a pleasant and happy recovery.

CANCER OF THE CERVIX COMPLICATING PREGNANCY. By  
J. FURNEAUX JORDAN, F.R.C.S., Surgeon to the  
Women's Hospital, Birmingham.

The patient was aged 36, had been married twelve years, and had had three children, the youngest of which was 4 years of age. The most interesting point in the history was that she had had continuous hæmorrhage for eight months before she came into the hospital, and had no idea until the previous day that she was pregnant. During these eight months she had not consulted a medical man, but at last the hæmorrhage became so alarming that she went to her own doctor, who sent her to the hospital. On examination I found that she was more than five months pregnant, and that there was a large growth springing from the posterior lip of the cervix, and the question arose whether I ought to remove this growth at once, or endeavour in any way to enable her to have a living child. There was no extension of the cancer to the broad ligament, nor to the vaginal wall, and it was a case where, after removal, there were

grounds for hoping she would live a long time. I therefore decided that it was a case for immediate intervention, admitted her to the hospital, and operated on July 18, amputating the cervix, and then completed the hysterectomy by the abdominal route in the Trendelenberg position. The operation was an extremely easy one, and was like removing a large myoma; the foetus had since escaped from the uterus. The patient made an excellent recovery, and at the present moment was practically well.

In reply to a question from Mr. Jessett, who had entirely endorsed the treatment of the case, Mr. Jordan said that he could not detect any enlargement of the lumbar or sacral glands, nor even felt them at all.

Dr. EDGE showed a dermoid cyst removed from a woman six months pregnant; the cyst was adherent to the right hypochondrium and simulated a renal tumour; the pedicle was twisted. Though some of the contents escaped into the abdomen the patient did as well as possible, showing that, though strangulated and threatening in appearance, the cyst itself was not infected. Sepsis in such cases must therefore be due to the operator. There was no interruption of the pregnancy.

The CHAIRMAN congratulated both Mr. Jordan and Dr. Edge on their successful treatment of two cases of exceptional interest.

THE PROPRIETY OF CONSERVATIVE OPERATIONS IN CERTAIN CASES OF ADNEXAL DISEASE DEMANDING ABDOMINAL CÆLIOTOMY. ILLUSTRATED BY SPECIMENS. By H. MACNAUGHTON-JONES, M.D., F.R.C.S.I. and Edin.

The question as to whether we have not exhausted the lessons which the exhibition of pathological specimens illustrative of the diseases of the pelvic organs of women can possibly teach, sometimes forces itself upon us. Has not every conceivable morbid process or change been illustrated and discussed until further inspection of the same states is

only a waste of time and a vain repetition of teachings and arguments which are intended rather for our personal glorification and advertisement than for the only excusable object in advancing them—namely, the progress and advantage of the art or science under the ægis of which a society exists? I fear most of us must plead guilty to the soft impeachment.

Let me say a word or two on this subject before entering upon the discussion of a point of practical moment in gynæcology which the two specimens I show illustrate. The present state of gynæcological knowledge, both in its theoretical and practical aspects, is anything but complete. True, some parts of the art are apparently crystallised, and the final type has seemingly been arrived at, but others are yet in the transitional and modifying stages, and many more are in the cruder colloidal condition. Many examples of this fact will occur to you, and it is not necessary for me to do more than briefly refer to a few of them. The statement applies equally to the etiology, the pathology, the therapeutics, the clinical handling of, the operative measures applicable to, and the correlative morbid conditions and associated organic changes of, such conditions. Instance the etiology of fibromata of the genitalia, the pathology of various mixed benign and malignant processes, the therapeutics of disorders of menstruation and vulvar and vaginal diseases, the clinical aspects of different forms of endometritis, the operative measures to be followed in certain cases of cancer of the uterus, pelvic suppurations, and displacements of the uterus, while there also remains a vast field for investigation in the study of the *associated* diseases which precede, accompany, or follow, affections of the female genitalia. This latter study does not merely include such questions as the clinical and pathological relation of appendical to ovarian inflammations, the spread of tuberculosis, the contrast of the spread of sarcoma with that of cancer, the influence of disease in the adnexa of one side on the health of the other, but it also embraces the legion of reflex clinical symptoms, if not pathological changes, which are associated with diseases of

the genitalia, whether in the great viscera, or in the nervous system. These are some few examples of the truth of my assertion that the resources of gynæcological investigation are far from being exhausted.

This being so, I think you will agree with me that the elucidation of such problems is more surely effected by the careful examination of the morbid parts removed by the operator himself, who can throw the most certain light on the natural position, appearances, anatomical connection, and the difficulty of removal of such growths or affected organs. On the other hand, I think the casual examination and haphazard expression of opinion on diseased structures, mutilated in the removal, altogether altered by their mode of preservation, and without any accurate clinical record of the previous history, generally does more harm than good, is retrogressive rather than progressive in its effects, and in a society tends rather to demoralise its scientific atmosphere than to impart an invigorating influence to those who take part in its debates. I say this here because, when asking Fellows of our own Society to bring specimens of interest, I have frequently met with the reply, "Oh yes, I could bring specimens, but what is the use? The exhibition of specimens is played out." On the contrary, I maintain that there is hardly an operation *justifiably* performed, in which a morbid growth, organ, or structure is removed, which does not afford some useful clinical or therapeutical lesson, and still more certainly a pathological one, worth learning. Such lessons are accentuated by the previous careful investigation of the parts removed, and by their subsequent exhibition.

I now come to the matter on which I wish to invite your views to-night—namely, how far does the natural desire on the part of the surgeon to remove as little as possible from the pelvis, militate against the future happiness of the woman and increase the risk to her life? To-night I must strictly limit the field of inquiry to one single group of conditions the surgeon has frequently to deal with, and narrow the discussion down to this: I mean the operative procedures

necessitated when we are compelled to perform *abdominal* coeliotomy for adnexal disease. I am not referring to colpotomy, though doubtless many remarks I have to make will in a degree bear on the vaginal operation also. A word is necessary with regard to the whole question of coeliotomy for adnexal disease, threadbare as that question is. I shall only touch upon it here as it bears on the subject I am dealing with.

I suppose we all come under one of four heads in our daily actions of life. Though it does not infrequently happen that in the elaboration of the mental impulses of many of us composite forces are at work, still, the preponderating material present in the gradual construction of the character of the man, gives to that character the aspect which we denominate and differentiate as knavery, folly, ignorance or honesty. Doubtless, as in geological strata, there are intercalations (transitional and intermediary states) in which one phase of our nature passes by imperceptible gradations into the other—the strata of the knave into the intercalary formation of the fool, or the looser bed of the latter into the solid rock of ignorance beneath.

At times, in searching with our exploring hammer through the complex formation and ramifications of human character, we are too apt to conceive of and seek for in others imaginary and impossible combinations, and, disappointed in the search, to damn altogether the subject of our hypercritical investigation.

You say, "Where in the gynæcological formation does the stratum of honesty come in? Is this species extinct?" The attitude of some suggests to us the answer that the pure quartz of honesty, untainted by any of these more strictly human elements, is only to be found in the gynæcological physician who deprecates operative interference in cases of adnexal disease, and piously talks of mutilation, risk, rest and change of air. To some of us this may have the same resemblance to the *bonâ fide* substance we are seeking as one of the Faulkner diamonds or genuine old paste has to



the real stone, and if we could merge Pecksniff and Micawber into a compound term we might give it that name as a definition. "Pure ivory," said the late Lord Lytton in one of his "Fables in Song," "fares no better than mere bone." And surely the osseous tissue of the genus *elephas gynæcologicus* is used to serve up on special occasions, and made to do duty as a substitute for the ivory of his tusk. Rare, however (as some would still have the world believe), as it is to find an honest operating gynæcologist, still we may, by a stretch of generosity, conceive that a few exist, and I must tax the exercise of your liberality to-night in asking you to concede to me that, however contaminated I may be by the *auri sacra fames*, by thirst for reputation, love of experiment, and that professional bias that Herbert Spencer has so well depicted as influencing all professional men, from archbishops and lord chancellors down to gynæcologists, still, I am, as Tennyson puts it, so far as "may be consonant with mortality," honest in the arguments I put before you. Further, I ask you to believe that in some of these I am moving in a direction contrary to my own bias and past beliefs.

I shall place the subject before you thus:—In the first instance, we will ask what is our present position as regards risk to life in abdominal coeliotomy—(a) in uncomplicated cases, (b) in complicated. By "uncomplicated," I mean plain, straightforward cases in which the operation can be completed without any unusual risks from adhesions, hæmorrhage, the presence of septic fluids, or such a low state of vitality or deficient vital resistance as to render the risk of any operative interference disproportionate to its severity. By "complicated," I understand those cases in which the operator meets with old and extensive adhesions, and organised attachments to surrounding parts, the presence of septic fluids, the prolongation of an operation in consequence of the complications being bilateral, the extra shock involved both by this and possibly by hæmorrhage and difficulty met with in delivering the tumour. To these unpropitious conditions we may add the temperament of some patients, restless,

apprehensive, hysterical and impatient of pain. In the first class of case I do not think it is an exaggeration to say that the mortality (with our improved methods) of simple salpingo-oöphorectomy is not more than 1 to 2 per cent. For my own part, taking all the cases of salpingo-oöphorectomy I have performed (I cannot say how many) complicated or otherwise, I have only lost one, and that I attributed partly to some operative bungling. The patient had been ailing for years; had mitral valvular disease, and was very anæmic. There was adnexal trouble, and it was associated with great agony. In consequence of her cardiac complication I put off operation. At last there was no alternative save operation, and I removed a blood-sac from the right side, and found another similar sac at the left. Both were bound down by adhesions. In freeing these and in bringing the adnexal mass to the surface I had great difficulty, and was tempted to seize the tumour with a tenaculum. In the effort I must have pierced a large venous sinus in the broad ligament. Immediately the pelvis filled with blood, and I had the greatest difficulty in arresting the hæmorrhage. I left a Miculicz tampon in the pelvis, and a temporary clamp. There was no further hæmorrhage, but she never recovered the shock. This has, so far, been my first and last death from salpingo-oöphorectomy.

If now we endeavour to determine the percentage mortality in the complicated cases, we have a difficult task. Tait said that oöphorectomy might be one of the simplest and easiest, or one of the most difficult, operations in surgery; and so it is. Still, I do not think that we can assign a larger mortality, even in complicated cases, than 5 per cent. Is there any operative procedure of equal severity in the whole domain of surgery of which more favourable results can be quoted than this? I am ignorant of any.

Bear in mind that the great majority of these operations are undertaken for utterly incurable conditions, or, at the best, in states where there are smouldering volcanoes ready to burst into activity at any moment under the slightest

provocation, and commonly rendering the woman's life a misery to her. This, then, is our position to-day in regard to salpingo-oöphorectomy—it challenges competition with any other surgical major operation for rapidity of execution, speediness of recovery, and completeness of cure. Personally, I should let no sentimental considerations or problematical sexual consequences stand in my way of rescuing a woman from misery, or saving her life—she knowing to the fullest the consequences of the step about to be taken and acquiescing in its completion. It goes without saying that gratifying results only follow from the most thorough and complete operations. “The opprobrium of all such operations in the future,” said Tait, “will lie in their incompleteness.” In another generation or two, when most names in British gynæcology are forgotten, or at the best, remembered only as those of commonplace workers, that of Lawson Tait will be regarded as one of the earliest landmarks in the evolution of this branch of pelvic surgery.

There must ever be a large proportion of cases in which the complete removal of both adnexa is indicated. Cystic and other tumours, pus cavities and sacs, if present, immediately determine this. There is another class in which the examination of the unaffected adnexa on one side proves them to be normal and healthy, *and in which no question of their removal can arise*. There is a third where partial disease affects the tube or ovary, or both, either on the one side or on the two. The question I wish to raise to-night is, How are we to deal with such cases—(a) when the organs at either side are sufficiently free from disease to justify attempts at conservative operations; (b) when the partially affected adnexa on one side are associated with organs so seriously affected on the other as to call for the removal of the latter.

We will deal with the first contingency. I take it that no one will remove adnexa in whole or part in which such operations as ovarian resection or salpingostomy offer a reasonable hope that a cure will follow their performance.

This would apply to simple cystic states, small blood cysts, localised suppurative foci in the ovary, or localised and circumscribed distension and stricture of the Fallopian tube.

Here careful ablation of the diseased parts and plastic operations afford the woman all the protection she can expect against a second operation. Should she, however, insist that in the event of its being found that there is a reasonable doubt of such a favourable result following the adnexa are to be removed, then I think she is entitled to the benefit of that doubt, and should not be subjected to the risk and ordeal of a second operation.

Before I discuss the other class of case, I may here interpolate a few comments on the way in which we are apt to assume to ourselves the privilege of determining, not what women may or do feel in these matters, but what we consider that they ought to feel. I fear that our familiarity with the complaints of women, of pain, misery, domestic incapacity, confinement, and loss of all social pleasure, breeds in us a certain degree of contempt, and that we should view them from a very different standpoint if we ourselves were the victims. We are so accustomed to the marvellous endurance and self-denial and the power of bearing silently that women as a rule possess in so much a greater degree than men, that we are apt to grow somewhat callous in making further, and perhaps unreasonable, demands on their fortitude. Possibly the common misuse of such terms as "neuroses" and "hysteria" has something to say to this. How many men would escape the stigma of being classified as "neurotic," or "neurasthenic"—nay, even "hysterical"—cool, brave, and imperturbable though they may be under ordinary circumstances, if they had some abdominal disease for months or years, comparable to any of the diseased conditions from which women often suffer uncomplainingly? How many men would screw up courage to undergo the ordeal of a second, or possibly third, coeliotomy? As compared with the majority of operations called for in diseases of the genitalia in women, removal of the appendix is a

ere trifle. Also the antecedent effects on the vitality of the sufferer are widely different. Ask any man how he would like to go through the trial of a second similar operation! Look at it how we may, to subject a woman to a second ovariectomy, the apprehension of it accentuated by her experience of the previous one, the unavoidable pain and risk, is a thing to be avoided on all grounds whenever it is possible, and it is our duty to take every precaution to protect her from such a catastrophe. Doubtless there are women who have a craving for operation, a distinct outcome of morbid mentalisation. We have all met examples of such. These are true instances of complex neuroses, in which the genitalia play an important part, but no surgeon will minister to a mind so affected by humouring the morbid whim or impulse by operating.

There is another inquiry that some women make, and one that seriously influences their determination. That is, how far the disease in the genitalia is likely to influence the germs which follow future conceptions? This is a question of great interest. It touches on the problem of hereditary influences, both paternal and maternal, in the pro-nucleus in the ovum. One would like to follow out the life histories of such conceptions and study the pathological developments in the mature organs, and the correlative mental attributes, latest modifications consequent upon such embryonic influences not necessarily manifesting their presence until adolescence or during adult life. If it is not unreasonable, to infer that the ovum must be influenced by the physical and mental state of the woman whose genitalia have been seriously affected, and by the local morbid conditions, whatever they may be, which may tend to a predisposition to kindred changes in the offspring. For instance, a patient from whom the tuberculous pyosalpinx I show was removed eighteen months since, is now in the third month of pregnancy.

The other class of case to which I refer is that where it is imperative to remove the adnexa of one side, and

where at the time of operation those of the other are found to be partially affected in any of the ways that I have mentioned, is it the best course to perform some conservative operation and return the adnexa, or to ablate them? Here I show the adnexa removed from two patients. The first was operated upon by me on December 9, 1900, for adnexal disease, and the affected tube and ovary were removed.

The patient was a married woman, aged 26. The adnexa were shown by me here. Constant and uncontrollable vomiting necessitated operation. All vomiting ceased from the time of its performance, and the patient was apparently restored to perfect health. The cyst on removal was the size of a small orange, there had been intracystic hæmorrhage into the tumour. At the same time the opposite ovary was resected, and a fair-sized cyst was ablated, while some smaller cysts were punctured. In May, 1902, she contracted influenza, and after this similar attacks of vomiting to those she had suffered from in 1900 commenced. There was also severe headache and a great pain in her right side. I saw her in July, the sickness having increased, and also the pain. She now had great difficulty in walking, and there was incontinence of urine. On September 15 I performed a second operation, when these adnexa were removed. It will be seen that there was cystic degeneration of the ovary, the tube being distended, and there was a double cyst in the broad ligament. She made a rapid recovery.

No. 2 is from a patient, aged 32, who was operated upon by another surgeon, an able gynæcologist, five years previously for a hydrosalpinx at the left side; it was the size of a fist, and was removed by a posterior colpotomy. The operation was a simple one. At the time both ovaries appeared on inspection to be healthy, except for the appearance of several small cysts, which were punctured. Both ovaries were returned. The uterus was healthy in size and position. The condition as reported to me when I saw her in August last was as follows:—Uterus normal, right ovary

normal, left enlarged and painful. There was a serious falling off in weight and general health. On examination, I found an adnexal tumour filling the pouch of Douglas. Operation revealed a left ovary and tube fixed and surrounded by adhesions. At the right side there was a cyst about the size of an orange, and an enlarged tube—a hydrosalpinx. The right adnexa were removed and the patient is now quite a different woman, notwithstanding the added complication of a movable and enlarged kidney. The left ovary still discharges its function, though I fear that it will ever be the source of at least periodical trouble.

Here are two operations occurring within a few months, in which a complete operation on both adnexa in the first instance would have saved a second one, also great suffering, if not risk. I have at present under my care three cases in which oöphorectomy at one side, resection at the other, and ventrosuspension, were performed by me, and in both there is now an adnexal mass which I fear will require removal.

The fact remains that no surgeon can tell what percentage of such conservative steps may bequeath a demand for secondary interference. And the very nature of the affections to which these organs are subject (I speak more particularly of the ovaries) renders this recurrence a probability. Nothing is more tempting than to do a neat resection and return an ovary. Nothing is more gratifying than to find pregnancy follow our efforts, and maternity secured. Let me pass round a few substantial evidences (photographs of children) of resection, following ventrofixation and salpingo-oöphorectomy. For one of these cases I am indebted to a gentleman who is here to-night, and who can bear testimony to the patient's miserable state of health at the time of operation (Dr. W. H. Bourke). I only refer to the gratifying result of her complete recovery in order to show that I am fully alive to the other side of the question, namely, the desire to preserve the adnexa at all hazards. There are points not to be overlooked in considering this question. Kindly remember that nothing is further from my desire than

to even seem to dogmatise on so important and disputable a point as the one we are here to discuss calmly and without bias. Still, I must candidly say what my own view is. I shall summarise it thus—given a case of adnexal disease demanding abdominal coeliotomy, in which the adnexa of one side are seriously involved, the contingency of partially affected or unhealthy adnexa at the other side should be carefully discussed with the patient, and her deliberately considered wishes ascertained as to the removal of or retention of these. The possibility of the need for a second coeliotomy should be pointed out to her—the surgeon not merely obtaining what is known as “a free hand,” but eliciting her express wish after the clearest possible explanation placed before her of the advantages and disadvantages of both courses. If there is a reasonable doubt of the future health of the adnexa in question, then I think the best course is to remove them, provided always that the patient has given her full consent to such a proceeding should it be deemed necessary.

I have said nothing of certain questions which are closely allied to this one. These are not touched on in this short paper, but concern the relative advantages of the vaginal and abdominal routes in affections of the adnexa, drainage as against radical operation in certain cases of pelvic suppuration (recently again advocated by Noble), or any collateral issues as the consequences of double salpingo-oöphorectomy, sexual or other, and I have avoided any allusion to methods of technique in conservative operations on the adnexa. None of these matters, therefore, come under discussion to-night. I trust that you will agree with me in thinking that the subject is one that justifies me in bringing it before you.

Mr. FURNEAUX JORDAN said that the question proposed was too difficult for a general answer; each case must be judged on its own merits. His own experience was that it was only in exceptional cases that conservative operations on the adnexa of one side, those of the other being incurably diseased, had any chance of success, and that if those of



one side only were to be removed the disease must, practically, be limited to that side. It was, however, quite exceptional to meet with lesions warranting removal on one side, without some disease on the other. The condition of the tube was, in his opinion, of more importance than that of the ovary, in regard to conservative measures. He had found patients less anxious to save their appendages than their surgeons, but thought that even when a definite wish had been expressed by the patient it was essential that the surgeon should be allowed a free hand, and that if the parts were found in such a condition that they might possibly give trouble after being removed, no risk of second operation should be run. He had brought a specimen from a patient on whom he operated that morning. She had been married thirteen years and had, though extremely anxious to have one, never had a child. For eleven years, since she had an attack of gonorrhoea soon after marriage, she had suffered intense pain at her periods. She desired that no risk of exposing her to a second operation should be run, but that, if it could be done with safety, she might be left the possibility of having a child. There was a small hydrosalpinx on each side, and the tubes were completely occluded, and as the case was of many years' standing—a fact always to be taken into account—and the adhesions were very dense, though the hydrosalpinx was very small, he decided it was wiser to remove the appendages of both sides.

Mr. JESSETT was strongly opposed to what he understood Dr. Macnaughton-Jones to recommend, namely, that if it was necessary to remove one ovary, and the other had one or two cysts in it, both should be taken away. He laid much stress upon the troubles following double oöphorectomy, and dissented altogether from Dr. Macnaughton-Jones' dictum that both ovaries should be removed, even if there was only cystic disease in the second one.

Dr. MACNAUGHTON-JONES: "Most emphatically that was not my dictum."

Mr. MANSELL MOULLIN said the point seemed to be

whether, when the appendages were hopelessly diseased on one side, but only partially so on the other, some conservative operation should be performed and the ovary returned. The important influence of the age of the patient had not been alluded to. If she was over 40 years, and there was any doubt, he would say take them out at once; but if a young woman the ovary should be preserved when possible. Like all other operators, he had had considerable experience of opening the abdomen a second time for some disease which rapidly developed in the appendages of the opposite side after the first operation, on a recent occasion after an interval of only ten weeks, and he had very little confidence in the value of partial operations.

Dr. EDGE thought that the question should be discussed from two points of view; first, as to the tube and fertility, and secondly, as to the ovary and the possible results of its removal. There was no reason to remove a fairly healthy ovary, even although it were necessary to remove the tube on that side.

Mr. O'CALLAGHAN quoted Mr. Lawson Tait's well-known dictum that if in operating for adnexal disease the appendages on both sides were not removed, a second operation was always required, and this was his own experience in these cases. Small cysts of the ovary, though found accidentally when the abdomen was opened for some other trouble, were not met with in one case in a hundred of severe adnexal disease. In his opinion, the tube was the important factor.

The CHAIRMAN (Mr. Mayo Robson) thought Mr. Tait's remark referred to gonorrhœal cases, but that the paper did so to adnexal disease in general. For himself he thought that, even in gonorrhœal cases, it was questionable whether it was ever right to remove a healthy ovary because one had to operate for disease elsewhere, and that the Society should not let it be supposed that it at all justified the removal of a healthy ovary on the ground that the other one was diseased.

Dr. MACNAUGHTON-JONES, in replying, emphatically

repudiated the idea, which was clear from what he had said, that he advocated the removal of such adnexa as Mr. Jessett referred to. He had been most particular to emphasise this. He referred to adnexa in which there was a reasonable doubt of the prudence of any conservative operation, and in which the balance of probability, after any conservative procedure, was in the direction of the need, in the future, for a second operation. He was speaking of partially diseased adnexa, and, as regards the influence of oöphorectomy on the mental side of the woman, the removal of affected adnexa in the instance of the insane was advocated by many most distinguished alienists; a course which was justified by reason of the cures which had followed operation. As to the ablation, under any circumstances, of sound adnexa, this, with the President, he altogether deprecated. Nothing could justify it. He was pleased at the President's emphatic disapproval of the idea. The conclusions he (Dr. Macnaughton-Jones) had summarised in closing his paper referred specially to that class of case in which the adnexa of one side were so diseased as to leave no question of removal, and those of the other so affected as to raise a reasonable doubt of the success of any effort to save them.

**BRITISH GYNÆCOLOGICAL SOCIETY.****THURSDAY, DECEMBER 11, 1902.****DR. HEYWOOD SMITH, A VICE-PRESIDENT, IN THE CHAIR.****SPECIMENS.**

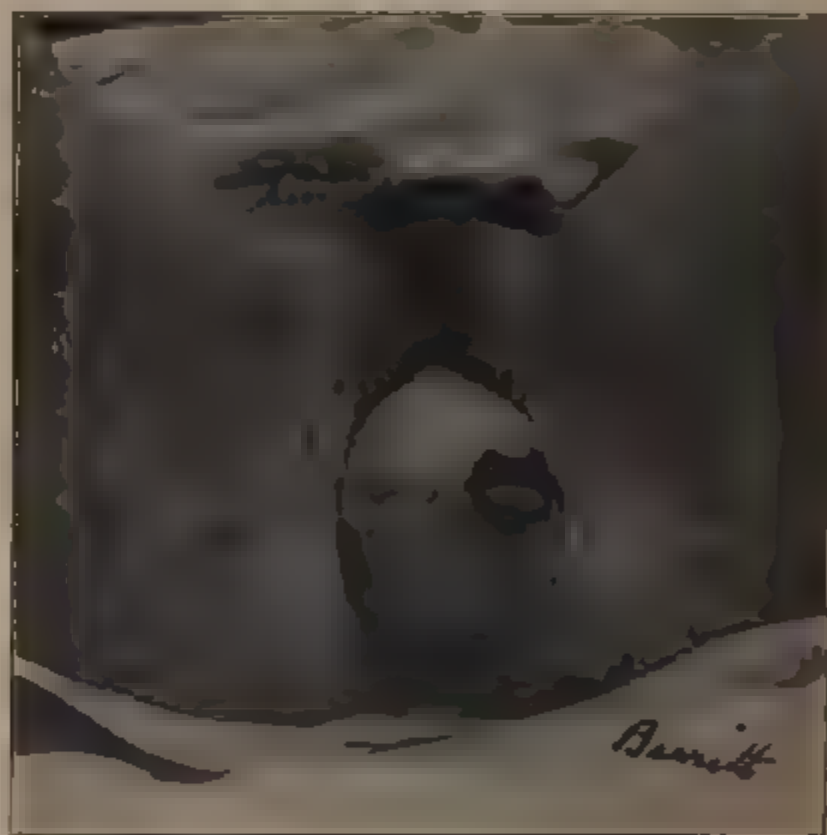
Dr. MACNAUGHTON-JONES showed a series of specimens exhibiting the different morphological features of myomata. The question arose from Dr. Snow's specimen of monoma shown at the previous meeting, as to the dual nature of that tumour. In the specimens he (Dr. Macnaughton-Jones) now brought for inspection, all the usual forms of growth were seen. In one the single fibro-myomatous growth involved the entire uterus, the cavity of the latter being obliterated and the section of the growth showing a dense fasciculated and reticulated structure; in this instance the whole tumour preserved an exceptionally red appearance. In another the growth, of a similar nature, is seen to compress the uterus laterally and so obliterates the cavity. Still, the tumour is a single one; there is, as in the last, but little capsule, and there is only the serous envelope covering the interstitial growth. In another specimen is seen a different condition. The uterus lies in the centre, and there is a growth, encapsuled and symmetrical in character, at either side of the uterus, compressing the canal between the two, and these bilateral growths are encapsuled. Any of these growths before section would give the idea of a single myomatous growth. Here, however, was an interesting specimen of a comparatively small myoma which had only recently been examined, of an oblong shape, and so hard that it had to be cut through by the aid of a hammer. In it

the cavity of the uterus (removed by supra-vaginal hysterectomy) was lost, and the growth exhibited two isolated nodulated masses of the same size, which had evidently grown in centrifugal fashion with consecutive laminæ, encapsuled and separated by some distance from the serous covering. In a drawing shown of another such tumour, also apparently a single myoma, five of these interstitial growths were seen embedded in the substance of the tumour. In one of these specimens a few small subserous growths were beginning to sprout. On the other hand, a typical example of the subserous and submucous multiple myoma was seen in the large tumour exhibited. In this, if the separate growths were all counted, from those of the size of a large orange to those of a pea, there could not be less than a hundred. In this case the uterine canal was hollowed out into a large cavity ; mucoid degeneration had still further increased its size and the separate outgrowths had taken the direction of least resistance, either submucous or subserous. A few were pedunculated. In another most interesting specimen which he had before shown at the Society they would see that the uterine canal was greatly enlarged and disintegrated by mucoid degeneration, while above it the large subserous myoma was of the ordinary type, but the distinct growth below, which grew from the cervical region, had degenerated into a necrotic mass in the centre, surrounded by a calcareous zone inside the capsule of the tumour. The question of interest was, how these interstitial, nodular and isolated growths began ; what relation did they hold to the original morbid process ? Were we to regard them as separate tumours, and speak of them as such, or were they secondary formations arising from some pathological accident or occurrence in the original growth, as, for example, an infarction, or a vascular degeneration, as contended for by Mr. Stanmore Bishop ? A centrifugal growth arising around an old extravasation and a resulting hyperplasia might explain their appearance, but this was a question rather for the histologist and pathologist.

Mr. O'Callaghan being compelled to leave the meeting the following case was then read by the Secretary.

**HYSTEROPEXY FOR COMPLETE PROCIDENTIA IN SINGLE GIRL, AGED 18.** By ROBERT O'CALLAGHAN, F.R.C.S.L., Surgeon to the French Hospital, London.

M. A., single, aged 18, was admitted into hospital with the condition you see in the photograph—this of two years' standing. Two years previously, when working in the fields, she lifted a heavy pannier, and while doing so she felt



Complete Procidentia.

something suddenly protrude between her thighs; the poor girl was so frightened and ashamed that she kept her condition secret, never even telling her mother; left her home and came to London, where she worked for her living with this fulsome condition of things existing, until at last the pain and scalding caused by the urine and discharge voided

over her excoriated thighs and ulcerated mucous membrane drove her to confide in her mistress, who brought her to the French Hospital. It is hardly possible to conceive that such a condition of things could exist undetected in this country for two years. After a few days rest in bed, the parts, having been treated by boric fomentations, were easily reduced, and after a fortnight's local treatment I opened the abdomen just above the pubes and anchored the uterus to the peritoneum by two deep silk ligatures passed through the upper and posterior uterine wall, which caused an ante-flexion of this organ, thus tilting the cervix backwards and upwards, giving a maximum tension to the vaginal walls. The operation is a perfect success, and the patient is now able to go about and work with her uterus and vagina in their proper site—nine months after operation.

As regards the age of the patient, I cannot find any evidence of such a condition occurring at such an early age. The misery, both mental and bodily, that this poor girl must have silently endured for two years can only in some way be realised by a glance at this photograph. I had hoped, when opening the abdomen, to find some cause for this unusual condition of things in a young girl, but found nothing abnormal. I stitched the uterus to peritoneum only, as I consider this makes an easy and mobile attachment for the uterus to swing from, and in case of pregnancy in the future gives more room for it to rise out of the pelvis.

In those cases in which I find this operation necessary after the menopause, I fix the uterus firmly to the muscle and tendon in the abdominal wound, and if the anterior wall is much prolapsed; I fix the uterus up, completely retroflexed, by inserting the sutures as low as possible in the anterior uterine wall. In conclusion, let me say that, in my opinion, the time has now come when pessaries, of whatever kind or description, should be for ever discarded in the treatment of these cases, and they should be dealt with by some form of abdominal fixation.

Dr. C. H. F. ROUTH, commenting on the possible

etiology of such a displacement, referred to two cases in young unmarried women in which prolapse recurred after repeated operations, and in which, from the observation of the nurses, there was reason to suppose that vicious interference with the genitalia on the part of the patients themselves had been a factor.

Dr. MACNAUGHTON - JONES thought the operation described quite inadequate for the cure of the condition shown in the photograph ; if the uterus had been fixed to the fascia of the abdominal wall there might have been a chance of such a result. It would be interesting to hear of the further progress of the case, as the patient did not appear to be wearing any support. As a rule, in his experience, such cases were not cured without some cicatrisation to the abdominal fascia, aided by colporrhaphy and amputation of the cervix.

Dr. HERBERT SNOW had had such excellent results after anchoring a prolapsed uterus in a young married woman to the cicatricial tissue left by a previous coeliotomy, as to suggest the idea of artificially creating such tissue as a seat for the fixation of the uterus.

The CHAIRMAN (Dr. Heywood Smith) concurred with Dr. Macnaughton-Jones that mere suspension to the peritoneum was absolutely insufficient. He believed he had himself been the first to fix a uterus purposely to the abdominal wall, and had been very severely criticised at the time for doing so, but ventral fixation came to be very frequently done in operations for ovarian disease a good many years ago. Howard Kelly and some others strongly recommended that the sutures should be passed through the posterior, as Mr. O'Callaghan had done, and not through the upper and anterior wall of the uterus. The best position for the suture was an important question in reference to the development of the womb in any subsequent pregnancy.

Dr. HEYWOOD SMITH then showed a cirrhotic ovary removed from the left side of a nurse, aged 24. On account of the patient's youth, the other ovary, though also affected



to a lesser extent, had not been removed. Menstruation had been established at the age of 14, and had been regular till a year before he saw her, when it began to come every three weeks and to last for six days ; but for the last two years she had had very severe pain in the left inguinal region before and during the flow. There was some tenderness on the left side, but no evidence of enlargement of the uterus ; she had been curetted without any good result. He had diagnosed the case as one of cirrhosis, as on operation it proved to be, but the specimen was peculiar. In ordinary cases of cirrhosis the fibrous tissue was deposited round the blood-vessels, and the stroma contained cysts, so that the outer surface became corrugated ; this ovary was quite smooth, its envelope, though not very thick, was extremely dense and firm, so that the increased local circulation at the periods set up a very tense condition attended with great pain. After the operation the patient suffered from chloroform sickness for nearly a week, and in her left side, probably from strain, a swelling formed which he took to be a hæmatoma, which subsided under the administration of perchloride of mercury. He was sorry to say that when she left London she had still some pain in the left side, and the question suggested itself whether it might not have been better to have removed both ovaries, and whether the pain was merely in the stump, and would subside as the post-operative hyperæmia decreased, or was sympathetic and due to the cirrhotic ovary left on the right side.

ON PROLAPSUS UTERI, WITH SPECIAL REFERENCE TO AN OPERATION FOR REPRODUCTION OF THE SACRO-UTERINE LIGAMENTS. By E. STANMORE BISHOP, F.R.C.S.Eng., Hon. Surgeon Ancoats Hospital, Manchester.

After quoting Mr. Bowreman Jessett's description of an operation designed by him for the reconstruction of the sacro-uterine ligaments from the BRITISH GYNÆCOLOGICAL

JOURNAL of May, 1901, Mr. STANMORE BISHOP said : It is perfectly evident that to Mr. Bowreman Jessett belongs the credit of the prior conception and publication of an operation for that purpose ; but whilst that is the case, the procedure which I advocate, and which I desire to bring before you to-night, differs from that described by him, not only in some points of technique, but essentially in its aim and the results produced.

Mr. Bowreman Jessett seeks to produce, and succeeds in producing, a return of the uterus to its normal level in the pelvis, and *fixes* it there—fixes the cervix to the sacrum behind, and the fundus to the abdominal wall in front. So long as the adhesions which he makes between these structures hold good the uterus is rigidly retained in position, and, I conceive, is unlikely ever again to prolapse ; but the aim and result of his operation is *firm fixation*, with little or no movement afterwards of the organ so fixed.

The aim of the operation I am about to describe is quite different to this : it is to obtain, as nearly as possible, a *return to the normal condition*, and I should like to emphasise this phrase, "*a return to the normal*," because I believe that we have a right to expect such a return at the present time in these cases. It is to be noted that we have to deal in this deformity, not with the ravages of disease, leaving behind them alterations in structure, which render such a return impossible ; or actual losses of tissue, which cannot be replaced ; but with the results of injury, of traumatism, which is not necessarily followed by either of these ; which leaves the parts affected in new relations to one another, it is true, but beyond this, in most cases, but little altered intrinsically, and therefore simply necessitating the repair of the results of such injury, in order to restore the patient to the *status quo ante* ; and this, I believe, in the majority of instances, to be perfectly practicable.

We need, first of all, a definition of the *normal* uterus, and I offer this as practically useful for the purposes of this paper. The normal uterus is one which is free to move in

every direction within certain limits, but not beyond, and which is capable of development in all its parts during a succeeding pregnancy. In order to make what follows clear, permit me very briefly to draw your attention to some points in the anatomy of this region. The general anatomy is, of course, perfectly well understood by all present, but there are certain things upon which fresh light has lately been thrown, and these are, I think, worth consideration.

The uterus is a muscular body with muscular offshoots ending in tendons, the latter blending ultimately with the periosteum of the pelvis, at four points of which the two anterior are opposed to the two posterior. These muscular offshoots are much longer in proportion to their width, and so permit of the free movement of the uterus within certain well-defined limits. They are the *true* ligaments of the uterus, and by their periosteal attachments they support the uterus at a normal level and prevent prolapse. These true ligaments are the round or fundo-pubic ligaments in front, and the sacro-uterine, sacro-genital, recto-uterine, or retro-sacral, for by all these names they are described by various authors, ligaments behind. Attached to and swinging from the periosteal insertion of these *true* ligaments to the bony pelvis the uterus is free to move within certain limits, but not beyond. It is also perfectly free to develop in all its extent during pregnancy. If we wish to restore the uterus to a normal condition we must therefore so act as once more to leave it *free to move within normal limits, but not beyond, and to develop in its whole extent during any succeeding pregnancy.*

I need say nothing of the round ligaments. Their anatomy, position and use are all perfectly well understood, but it may, perhaps, be considered questionable that the sacro-uterine ligaments should be described as musculo-tendinous offshoots of the uterus. In old anatomies, and in most of later date, these ligaments are figured and described as mere folds of peritoneum. In Gray's "Anatomy," last edition, 1901, they are still so described. In the eighth

edition of Quain's "Anatomy" there is exactly the same description, but this is altered to some extent in the last, the tenth, edition, edited by Schaefer and Thane. In this, after describing the fold of peritoneum, it is said: "This fold contains a variable amount of fibrous tissue, and some non-striped muscular fibres forming the utero-sacral ligaments."

Schultze, whose work on this subject has certainly not received the attention it deserves, in 1881 had, however, given the first clear description of these structures. In his work on "Displacements of the Uterus," translated by Dr. J. J. Macan, of this Society, he said: "From the posterior surface of the uterus, a little below the junction of the cervix to the body of the organ, the muscular bands in the folds of Douglas pass to the lateral parts of the sacrum, nearly at the level of its second vertebra. The upper insertion of these muscular bands varies considerably, though it would seem that they always lose themselves in the muscular wall of the rectum, and in the subserous connective tissue. The lower insertion is formed by some muscular fibres from each side coalescing behind the uterus, and forming a single unique muscle, called by Luschka the *musculus retractor uteri*"; and further, "in the gravid, or still better, in the puerperal uterus . . . the normal hypertrophy of the muscular tissue of the uterus extends to that of the folds themselves." No attempt, however, was made by Schultze to utilise the knowledge thus shown of their true character by any operative interference with them. But perhaps the clearest and most definite description of these muscular offshoots of the uterus is to be found in a paper contributed to the January number of the *Journal of Anatomy and Physiology*, 1902, by Professors Dixon and Birmingham, from which this view (fig. 1) of a diagonal section of the pelvis is taken, which shows very well their position and the direction of their traction. They say: "The sacro-genital ligaments . . . are two bands of mixed fibrous and muscular tissue, which pass from the



FIG. 1.—Diagonal section of the pelvis, showing the sacral ligaments.  
Reproduced by permission of Professors Dixon and Birmingham.

region . . . of the isthmus uteri in the female, outwards and backwards on each side, to blend with the tissue in front of the lower end of the sacrum and the back of the rectum. The two genital folds, two well-marked peritoneal ridges covering these ligaments, become continuous with one another on the back of the isthmus uteri, forming the torus uterinus in the female." These bands are therefore true ligaments, and although small and covered by peritoneum in such a way that their actual character at first sight may escape, and has escaped recognition, are far more important as to resisting and supporting power than mere peritoneum could by any possibility be.

Before the cervix, and with it the uterus, can descend, still more before they can be extruded, as we see them in procidentia, these musculo-fibrous bands—the utero-sacral ligaments—must be weakened, relaxed, or torn through.

Besides these *true* ligaments of the uterus, upon the integrity of which, I contend, the maintenance of its normal position depends, there is another and broader attachment of the uterus, that, namely, to the bladder, which at first sight would seem to have much to do with its retention at a proper level. But firm as this connection is, its value is greatly discounted by the mobility of the bladder itself; an organ by no means firmly attached to its surroundings, and the posterior wall of it, to which the uterus is connected, being a structure which is continually varying in its position as the viscus, of which it is a part, is filled or emptied. Every one's experience of prolapse, and still more of procidentia, is that in such cases the bladder loses its own position, and is dragged downwards by the descending uterus. Indeed the converse theorem might be far more safely held, that the bladder depends greatly for the maintenance of its normal position upon its attachment to the uterus, and through it upon these sacro-genital ligaments, than *vice versa*. Such a theorem would obtain additional support from the fact that Professors Dixon and Birmingham describe these sacro-genital ligaments as existing also in the

male. In male subjects they are attached anteriorly to the base of the bladder, and assist materially in its retention in its normal position.

*The broad ligaments* are usually considered to be amongst the more important structures which maintain the uterus at its normal level, but I confess I think without good reason. These ligaments, so called, since they contain no real ligamentous tissue, are composed entirely of two folds of peritoneum, enclosing between them some loose connective tissue, arteries, veins, lymphatics, and a portion of the ureter. They have no true resistant power against descent of the organ they enclose. Like all other portions of peritoneum they are capable of great extension by slow, but persistent, forces acting upon them. This is evident in all cases of procidentia. The uterus may be outside the pelvis, outside the vulva, it is still embraced by the broad ligaments, which are not torn through, but simply stretched; and such stretching has evidently not met with any determined resistance from them. They are supple, smooth, in no way altered in structure, but have simply yielded passively to the forces brought to bear upon them. We see exactly the same thing in the formation of the voluminous sac of a large scrotal hernia. This capability of easy yielding to persistent force is indeed well exemplified in the changes which occur in these very folds themselves during pregnancy, and still more in that portion of them which covers the uterus itself. The peritoneal covering of an unimpregnated uterus is small indeed compared with the large expanse which lies upon that uterus at full term, but which is precisely the same, and will return to almost its original size and shape when once parturition is over.

It is evident that we cannot rely at all upon merely peritoneal attachments to prevent or restrain prolapse, so that the value of the broad ligaments for this purpose is a negligible quantity.

There are certain other things, the importance of which

has been very generally emphasised by authors, as more or less subsidiary factors in this question. Such are :—

(1) The angle at which the uterus lies with reference to the vagina.

(2) The potentiality of the vaginal canal, as opposed to the idea of an actual space beneath the uterus.

(3) The action of the levator ani, pelvic fascia, and transversi perinei muscles in maintaining such potentiality and converting an actual canal into a valvular slit in the tissues.

(4) A postulated balance between intra-abdominal pressure and the external atmospheric pressure.

But such a case as the following, counterparts of which must be in the memory of all operators here present, demonstrates that all these subsidiary factors may be absent or non-effective, and yet, so long as the true ligaments of the uterus are intact, that organ will not descend.

Mrs. M., aged 51, a washerwoman, came to Ancoats Hospital in July of this year, with the complaint that her womb was coming down. She had had two children, the eldest of whom was 27 years old. It had been a severe labour, necessitating the use of forceps, and she attributed all her troubles to this confinement. The womb began to come down, she said, as soon as she began to go about. On examination, the perinæum was found to be entirely absent, the sphincter ani split, and the vagina and rectum had a common opening, divided about half an inch above the skin level by a narrow band, the combined edge of the rectal and vaginal mucous membranes. There were marked rectocele and cystocele, but the finger, passed up the vagina, found the uterus in its normal anteverted position, and at its normal elevation in the pelvis. Thus although all subsidiary factors had been non-effective for twenty-seven years, and the patient had been engaged in a laborious occupation, necessitating much standing, the



terus itself had not prolapsed, its intrinsic ligaments being intact.

Incidentally, and inasmuch as all these patients describe their condition in the same way, as a "falling of the womb," this case emphasises the necessity of careful differentiation, for operative purposes, between *true uterine* descent and mere prolapse of the vaginal walls, for the latter of which conditions the operation for reproduction of the sacro-uterine ligaments is not required or suitable.

Returning to the true ligaments of the uterus, I think a few moments' consideration will show that of the two sets, the fundopubic and the sacro-uterine, the integrity of the latter is of by far the greater importance. Their relative shortness, the position of their implantation below the main bulk of the uterus, their co-ordinate action with the vesical attachment in front, all render them more effective in maintaining the uterus in its normal position than the comparatively longer round ligaments, which act upon the fundus. And indeed, instinctively, as it were, in all measures short of operative interference, practitioners have always acted upon these facts. Where the perinæum and its contained muscular fibres are intact, and often when they are not, pessaries have been used, designed apparently with the one idea—of replacing or shoring up these sacro-uterine ligaments. I do not refer to rings or inflatable ball pessaries, which indeed are mere mechanical plugs, but to those pessaries which act upon a scientific basis—Hodge's, Thomas's, and their modifications. These all act in this way, although their action has been otherwise explained and justified. They support weakened and relapsed sacro-uterine ligaments, and if these are not torn through, the support and rest so obtained may, and indeed often does, permit of the latter's regaining their normal length and tone, and so the patient may be cured by the use of these appliances. When these

ligaments are torn, the upper part of the instrument to some extent replaces them. In the first instance, after a certain time the pessary may be disused, in the second it will always require to be worn; and this I conceive to be the reason why some cases will apparently be cured by pessaries worn for a sufficient length of time, whilst others can never dispense with their presence. Of course the integrity or otherwise of the other ligaments, and of the perinæum, are large factors in any given case, but not, I contend, of the *primary* importance which belongs to the sacro-uterine ligaments.

But if this is true of cases treated by measures short of operation, how is it then that when operative interference is undertaken, the importance of these posterior ligaments has been so largely ignored?

The reason I believe is to be found mainly in the conditions under which operations have been evolved. When first surgeons attempted to remedy this defect it was not possible, as it is now, to control all the routes by which the uterus might be reached. The sacro-uterine ligaments are deeply seated and difficult of access. Moreover, in all the old text-books of anatomy that we have seen they are described as mere folds of peritoneum. Not only is mere peritoneum useless, but to the pre-antiseptic surgeon the peritoneum was forbidden ground; it was the one structure in the body of all others to be avoided. Even in operating on hernia, where it is now recognised as so all-important that the condition of the constricted gut should be known, the peritoneal sac in those days was opened only as a last resource, and operations were planned, and instruments—such as the old hernia knife and director—constructed for that one all-important purpose, to avoid opening the peritoneal cavity. Naturally in those days no attempt was made to interfere with the ligaments and all operators busied themselves with attacks

upon the uterus through the one avenue open to them, the vagina, and upon the one structure with which they believed that they could safely deal, the vaginal mucous membrane. It was not then a question as to what was the ideal treatment, it was a question of what was possible under the then existing conditions.

When an attempt was first made to shorten elongated and lax ligaments, those the ends of which lay outside the peritoneum, and could be dealt with without invading that cavity, were naturally those to be first attacked, and the operation for shortening the round ligaments was devised. In cases of retroversion or retroflexion, it has done extremely good work and will continue to do so; but it is curious to note that the importance of the genito-sacral ligaments was fully recognised by Alexander himself, who instituted this operation, although he and those who followed him made no effort to deal with them by operation. In his "Practical Gynæcology," p. 61, he says: "The Hodge, or the Hodge and stem, according to the nature of the case, are always introduced just before the operation is commenced. The Hodge should be fairly large so as to push the cervix well back, and relax the posterior uterine ligaments. . . . Where there is a weakened perineum, a tendency to cystocele or rectocele, or distinctly relaxed retrosacral [*sic*] ligaments, the peritoneum must be fortified at the same time that the round ligaments are shortened, or a Hodge's or other pessary, as an inferior support, will require to be permanently worn."

Useful as this operation on the round ligaments is in cases of retrodeviation, its inefficiency in cases of prolapse and procidentia is evident *a priori* from the very conditions of the problem involved, and is equally evidenced in practice by the numerous fixations which have been in vogue of late years. A pull from the uterine cornu

towards a fixed point in the pelvis on the same or but very slightly higher level can never raise the whole body of the uterus to any great degree ; still less if the posterior supports are gone can it raise and carry backwards the cervix. It will then simply draw the uterus forwards towards the pubes, and so place it in a still more favourable position for further descent. And recognising this, surgeons who had overcome by that time all dread of an open peritoneum, seized the uterine body and drawing it bodily forward and upward, fixed it to the nearest point which offered resistance—the abdominal wall above the pubis. But such ventrofixation materially interferes with the proper development of the anterior uterine wall in any subsequent pregnancy ; and so it became a matter of great importance to show cases which, in spite of this, had carried a foetus to full-time development. Several such cases are now on record, but whilst it has thus been shown that such a result is possible, cases are also on record in which abortion has occurred repeatedly, others in which the resulting parturition has been greatly impeded, and others in which death has resulted. It is human nature that successful cases should be emphasised, and that those which have ended badly should be frequently unreported ; the more honour to those authors who have faithfully recorded their failures. But none the less the departure from a normal condition induced by this operation and its results stands out clearly. No operator who has performed a ventrofixation, and still less the practitioner to whose unlucky lot it may fall to attend a patient through the succeeding period of irregular dilatation of the uterus during pregnancy, and the equally risky parturition, can feel happy or secure until this severe test is well over, however triumphant they may appear afterwards. If nothing nearer to a return to the *status quo* is possible, the method with all its drawbacks may in some cases be

justified—in women past the childbearing period, for instance ; but if better methods can be carried out, methods which attain more nearly to a restitution of the prolapsed organ to its original position and condition, then the supposed necessity of this plan loses its *raison d'être*.

I have myself performed a large number of ventro-fixations, and besides the objections already mentioned, another has been strongly impressed on my mind. The portion of abdominal wall to which the uterus has been attached, although relatively a fixed point, is not so absolutely. Months after the fixation has been carried out, the area of fixation will be found sunk inwards, drawn backwards and downwards by the weight of the attached organ, which will have sunk again to a much lower level than that at which it appeared at the time of operation to be located, so that the final result, even so far as the mere elevation is concerned, is not so satisfactory as at first would seem to be the case. The bladder in many of my cases also was compressed to some extent, its capacity decreased, so that the patients were troubled by undue frequency of micturition, and an inability to restrain themselves for any length of time when desire to urinate arose.

I do not mention vaginofixation except to condemn it. I have practised it in one case, but should never again attempt it. The principle upon which it is based is, to my mind, false, and the results, so far as I have seen them, are deplorable. There is, moreover, one comprehensive objection to all these operations, and it is I submit a very forcible, if not a fatal one. Consider for a moment the symptomatology of this condition. In the very earliest period of prolapse, and increasing *pari passu* with it, pain and a sense of dragging weight is felt in the lumbo-sacral region. The uterus as it descends usually becomes more bulky, and many of the discomforts experienced are attri-

buted to its increased weight. This is doubtless true, but for the full explanation I conceive that we must go still further back. The nerves of the uterus are derived from the inferior hypogastric and spermatic plexuses of the sympathetic system, both of which lie on the posterior concave wall of the pelvis behind the peritoneum and closely applied to the periosteal surface, as well as from the third and fourth sacral nerves of the spinal system. So long as the cervix maintains its normal position with regard to the posterior pelvic wall, so long there will be no tension upon these nerve filaments, but immediately that position is altered by the rupture of the genito-sacral ligaments which keep it in due apposition, tension on these nerve-fibres will commence, and increase with every degree of departure from its normal proximity to the sacrum.

Again, the veins which return the blood from the uterus, the uterine veins, follow the course of the uterine arteries. Now it is well known that traction upon the uterus in a downward direction will so kink and narrow these arteries that a section of the uterus may be made through its entire extent without loss of any appreciable amount of blood so long as that traction is kept up, though the cut surfaces will bleed freely if the uterus is allowed to resume its normal position. The less resistant and much thinner vein wall will be still more easily affected by descent produced by any cause. As the blood current in these veins is delayed hyperæmia of the organ must necessarily ensue, and the uterus become heavier still. Such increased weight leads to increased obstruction, and a vicious circle is formed, escape from which is only possible by the restoration of the organ to its normal plane and its retention there.

From this point of view a review of the various operations practised brings out still more plainly their inefficiency.

Amputation of the cervix, which I had omitted, although it may decrease the actual weight at the moment, can never reapproximate the lower part of the uterus to the sacrum, and so relieve tension to the nerve-fibres supplying that organ.

And the same objection applies to any operation upon the mucous membrane of the vagina, or upon the perinæum. I believe that the words I have quoted from Mr. Bowreman Jessett in the introduction of my thesis are absolutely true, and that slowly but surely the weight of the heavy uterus above, acting as a wedge, will open up again the passage beneath, which has been temporarily narrowed, however ingeniously it may have been performed; and it is evident that even immediately after operation the normal relation of the cervix to the sacrum has not been thereby reproduced.

The same precisely may be said of Alexander, Ols-hausen's, or any of the other operations which deal solely with the round ligaments.

Ventrofixation will certainly relieve the venous hyperæmia by taking off the narrowing strain upon the blood-vessels of the uterus, but it cannot in any way replace the cervix in its normal relation with the sacrum, and so restore the nerve filaments to their normal freedom from tension.

One last operation has been practised for the relief of this condition, and surely we are justified in considering it the last effort of despair. This operation was described by Prof. Edebohls at the Manchester meeting of the British Medical Association in July. When all else fails, this operator removes the uterus, and with it the mucous membrane of the vagina down to the vulval edge. Then he unites the bared connective tissue between the bladder and urethra on the one side and the rectum on the other by a series of purse-string sutures, beginning at the peri-

toneal opening, pushing this up, and placing another immediately beneath. Proceeding in this way until he reaches the skin, this also is united, and a continuous perinæum is thus produced as in the male, from the anus to the urethra. He adds, very properly, that the result must be carefully explained to the patient before submitting her to this transformation.

It is, I think, evident that none of the operations I have described, and which comprise all those at present in use for the cure of procidentia or prolapsus uteri, can fairly be described as producing a return to the normal condition, but that they are, on the contrary, simply substitutions of one abnormal and deformed state for another. The change may be, and doubtless often is, an improvement on the original, but it is not and cannot be a reproduction of the *status quo ante*.

As I have endeavoured to show, the genito-sacral ligaments, though small, are all-important in maintaining the normal position of the uterus; in cases of prolapse, and, *a fortiori*, in those of procidentia they are relaxed, lengthened, and in many instances torn through. In those cases in which the ligaments are still intact, but have merely become lengthened, the support of a properly fitting pessary, by allowing rest and time for them to recover tone, will often be all that is required, but in the severer instances, where they are absolutely torn through, no amount of rest will bring about their reunion. Torn muscular fibre retracts and atrophies from disuse; in the case of small muscles, such as these, a few months will suffice to render them practically indistinguishable from the connective tissue in which they lie. Can anything be done to replace them, to once more afford stability to the postero-inferior segment of the uterus in its normal position?

Here it is well again to emphasise the importance.



if we are to restore the uterus to its normal position and condition, that it should be free to move within certain limits. If absolute fixation of the anterior and superior wall of the uterus is open to objection, still more would absolute fixation of its postero-inferior segment be injudicious, since the normal descent of the cervix in parturition would be prevented, and the escaping foetal head would find itself opposed by the immovable wall of the sacrum, coccyx, and the firm fibrous structures spreading from them both. At the same time an attachment must be contrived which will be firm and permanent. For a fixed point the aponeurotic structures covering the anterior surface of the sacrum supply a perfectly satisfactory and sufficiently broad area for choice. In choosing the particular point the ureter and rectum must be carefully avoided. Both lie over these structures and beneath the peritoneum. Both are easily recognisable. So also are the nerve strands which form elevated flattened ridges. It is wise also to choose a point fairly free from vessels. The main vessels—the common and internal iliacs—are too far out for any uneasiness on their account. I have found that a point between the rectum on the inner side, and the ureter on the outer, is well adapted for the purpose. As to the height vertically on the surface of the sacrum, the manner of selecting this will be dealt with later. It will vary with almost every case.

In old cases of procidentia, as I have already pointed out, it would appear to be useless to search for the remnants of the original ligaments. They will have atrophied, and even if they could be found after a long and difficult dissection, the result of which would be needless damage to the tissues involved, they would be of slight value for reparative purposes. Whilst this is especially true in such cases, it is also true in some minor cases of prolapse. Bovée (in the *American Journal of Obstetrics*, July, 1902),

however, claims to have found and united the torn ends of these ligaments both from the vaginal and from the peritoneal aspect. Personally, I believe that when the ligaments are torn through this is a mere waste of time, and exposes the patient to needless risks, and that otherwise it is doubtful whether any operation of this kind is required. Like Mr. Jessett, I do not attempt a dissection which must be extremely difficult, and is from the very conditions present foredoomed to failure, but seek to substitute something which will act in the same way, which is easily accessible, and which is sufficiently firm to be trustworthy.

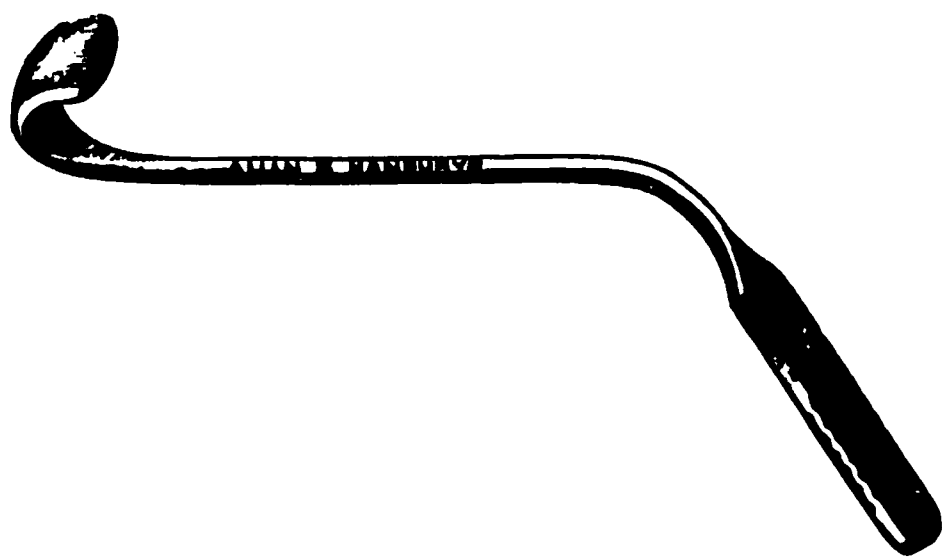


FIG. 2.—Special vaginal sound of the author.

Such a structure is to be found in the upper extremity of the posterior fornix, a sufficiently firm resistant material which, whilst firmly attached to the cervix, is yet of sufficient length, between its most superior point and that blended with the latter, to permit of normal movement. It is this which is utilised as the new sacro-uterine ligament.

The technique of the operation as I have carried it out is briefly this. The protrusion being reduced, the patient is placed in the extreme Trendelenburg position, and the abdominal wall is opened by a median incision. As soon as the intestines have sunk away from the pelvis towards the diaphragm two threads are passed through the broad ligaments, one on either side of the uterus, enclos-

ing tube and round ligament: the ends of these threads are tied, and by them as tractors the fundus of the uterus is drawn forwards. A special sound (fig. 2) is passed by an assistant into the vagina, and made to press upwards the posterior fornix so as to render it prominent. On either side a stout silk thread is passed vertically through the substance of the fornix, avoiding the mucous lining, so that each protruding end is half an inch distant from the other and the whole loop one-third of an inch from the cervix. The fornix is now applied to the sacrum, and a spot is chosen directly opposite, free from vessels and subjacent nerves and ureter, and well outside the rectum, where the needle carrying this suture is entered deeply so as to embrace the periosteum covering the bone; it is brought out again half an inch directly above its point of entrance. Before tying this suture, a narrow strip of peritoneum is removed from that portion of the fornix which lies in its grip, so as to bare the connective tissue beneath. Greig Smith long since pointed out that the most permanent adhesion possible was one between peritoneum and connective tissue, such as is here brought about. This is repeated on the opposite side; the sutures are tied and their ends cut short. Sometimes the position of the rectum will only permit of single fixation. This should then be more central in its position as regards the uterus and somewhat broader. The new ligament or ligaments are now formed, and the cervix hangs in its normal position from the sacrum by that portion of the vagina which lies between it and the sutures. The traction threads through the broad ligaments are now removed. It will be noticed that no attempt is made to attach the posterior fornix to the uterus, as in Mr. Jessett's operation, since it would defeat the whole aim of the method I have described, which is to leave the posterior segment of the uterus free to move within normal limits, whilst preventing movement beyond.

As in all cases of procidentia the round ligaments have

been also greatly lengthened, they are now shortened by Olshausen's method. But it is important not to shorten them to their fullest extent, so as to permit of some play still being left, so that the uterus may rise with the filling of the bladder beneath as in the normal condition. For this part of the work Doyen's pubic retractor is very useful, giving as it does a clear view of these ligaments, and of their points of exit from the pelvic cavity. I have found it to be rather in the way in the earlier stage, so that I only introduce it after the new sacro-uterine ligaments have been made. After shortening the round ligaments it is removed and the abdomen closed. The position of the uterus and vagina is now as nearly that which obtained before prolapse began as possible, whilst the uterus itself is perfectly free to move within normal limits, perfectly free to develop in its entirety.

This manœuvre does not of course exclude or attempt to take the place of perinæorrhaphy, if this should be necessary: but any repairs of this kind I prefer to carry out at a later sitting: about fourteen days afterwards if all goes well. Of all the methods by which perinæorrhaphy can be carried out, Tait's appears to the author to be the most rational, with certain modifications, but these are outside the scope of the present paper.

I have now performed this operation upon ten patients; all these women had procident uteri; in six of them the procidentia was complete. Their ages varied from 19, the youngest, to 54, the eldest. Only one was a nonipara; she was a woman of 42 years of age, who had suffered from prolapse for nearly six years, the uterus entirely procident for two years. She had nursed a paralysed mother, and felt the first symptoms of prolapse when lifting her. All the rest were parous women. Of these, five gave a history of tedious and severe labour, necessitating the use of forceps. One had suffered from hæmorrhage post partum, and had been plugged by the surgeon in attendance. In six there was present relaxed

outlet, with cysto- and rectocele, necessitating Tait's operation after the operation above described.

Of the six completely procident cases, difficulties in urination were only noticed in four cases. In all of these pressure upwards of the displaced organ was necessary before the act could be performed. Urinary difficulty was also noticed in two cases which were not complete. Difficulty in defæcation was not complained of.

Of all cases, only three had worn a pessary: most of the cases occurred amongst a class who are apparently indifferent to the resources of civilisation, but it was noticeable that those who had, had exhausted all the various forms without any satisfactory result, and that two of these had abandoned any attempt to obtain relief from supports for several months before applying for operation.

The after-results in all have been good. In one case a mild attack of hæmorrhoids appeared soon after leaving the hospital, but she reported herself the next month as perfectly free. A very marked feature has been the freedom from sacralgia at once on recovery from the anæsthetic, and this sacral pain and aching, from which all suffered before the interference, has not so far returned in any case.

The mortality has been *nil*, and no sign of relapse has so far been seen, but the earliest case is hardly twelve months old, nor has any one undergone yet the supreme test of pregnancy. These two points therefore must at present remain undetermined.

The details of these cases are very much the same; it may, however, render clearer the various points referred to above if I mention two of them at rather greater length.

CASE I.—M. A. S., aged 30, two children, eldest 6 years old, youngest 4 years. First confinement lasted three days and was terminated by forceps. Attributes her prolapse to a fall down three stairs with the child in her arms nine

days afterwards, since which time she has felt it more or less from time to time. Actual procidentia occurred first twelve months ago. Defæcation and urination are normal, but reposition of the uterus is required before the latter act can be performed.



FIG. 3.—Case of Procidentia, actual condition in M. A. S. before operation.

*Actual state on admission.* Perinæum very short about half an inch. Sphincter ani complete. Uterus is outside the vulva, and is somewhat enlarged and heavy. Sound passes  $3\frac{1}{2}$  inches. Os points to pubes. General condition of patient good. Urine normal. The photograph shows the actual position of the uterus.

Has worn Thomas's ring, and pot pessaries. The two first did not remain *in situ*. The last was extremely uncomfortable and ineffective, some prolapse still occurring, but probably this was merely vaginal.

*August 21, 1902.*—Operation as described above. Some difficulty with intestines, notwithstanding extreme Trendelenburg position. They were therefore allowed to escape into warm flat sponges, whilst the utero-sacral ligatures were placed. The left suture could not be satisfactorily made to penetrate the periosteum owing to the trouble caused by the intestine, and the frequently jerking character of the respiration, so that the parietal peritoneum only on this side was embraced by the suture. On the right side, however, the suture was properly placed. On searching for the round ligaments, these were found to be so attenuated that only by drawing the fundus backwards, and so putting their peritoneal covering on the stretch, could they be recognised. After shortening them to the desired extent the intestines were replaced and the abdomen closed. No rectocele or cystocele was evident on inspecting the vagina afterwards.

Urine was passed naturally at 11 a.m. the next morning; the bowels acted well on the third day. Some pain was complained of over the hypogastrium on the morning after operation, but this was relieved after a suppository of morphia, and did not return. From first to last no pain was complained of in the sacral region.

*Sept. 1.*—Ten days later. Tait's perinæorrhaphy with interrupted buried sutures, the wound being afterwards sealed by celloidin.

Perfect recovery without incident, and discharge from hospital on Sept. 19.

*CASE 2.*—M. M., aged 46. Two miscarriages, first eight months after marriage nine years ago, ten weeks' pregnancy. Second sixteen months after marriage, two months' pregnancy. One living child six years since. Confinement lasted fifty hours, with rupture of membranes twenty-four hours before the appearance of labour pain. Terminated by forceps and chloroform. Nineteen months after confinement first noticed descent of the uterus, which came down suddenly. The following year, 1898, was forced by pain to go to a women's hospital in this city, the



uterus being then outside the vulva. Was treated by rest and pessaries of various kinds. Since that time she has consulted various medical men and has undergone some operation in another hospital, five weeks after which she had a ring placed in the vagina. This came away the following morning. After this she wore a pot pessary with straps for twelve months. This gave her great discomfort, and she says that the uterus came down by the side of it; she gave up using it in November, 1901. Then she wore a ring for a while. Since last April there has been some bleeding, which has dribbled from time to time but never very much.

Her menstruation has always been regular as to time, but the period now lasts for a week. Before marriage it lasted for three days. Last period commenced fourteen days since.

Defaecation was always regular until last Christmas, since then she has had pain about the umbilicus before the act.

*Condition at time of examination.*—Healthy-looking woman, of medium height and sanguine complexion. The uterus lies between the thighs, with the fundus looking towards the anus, os looking upwards towards the pubes. The vaginal wall is entirely everted and dry, covered by scaly epithelium. The os contains a small fleshy polypus, the pedicle of which springs from the cervix just within. This is destroyed with the Paquelin cautery under cocaine.

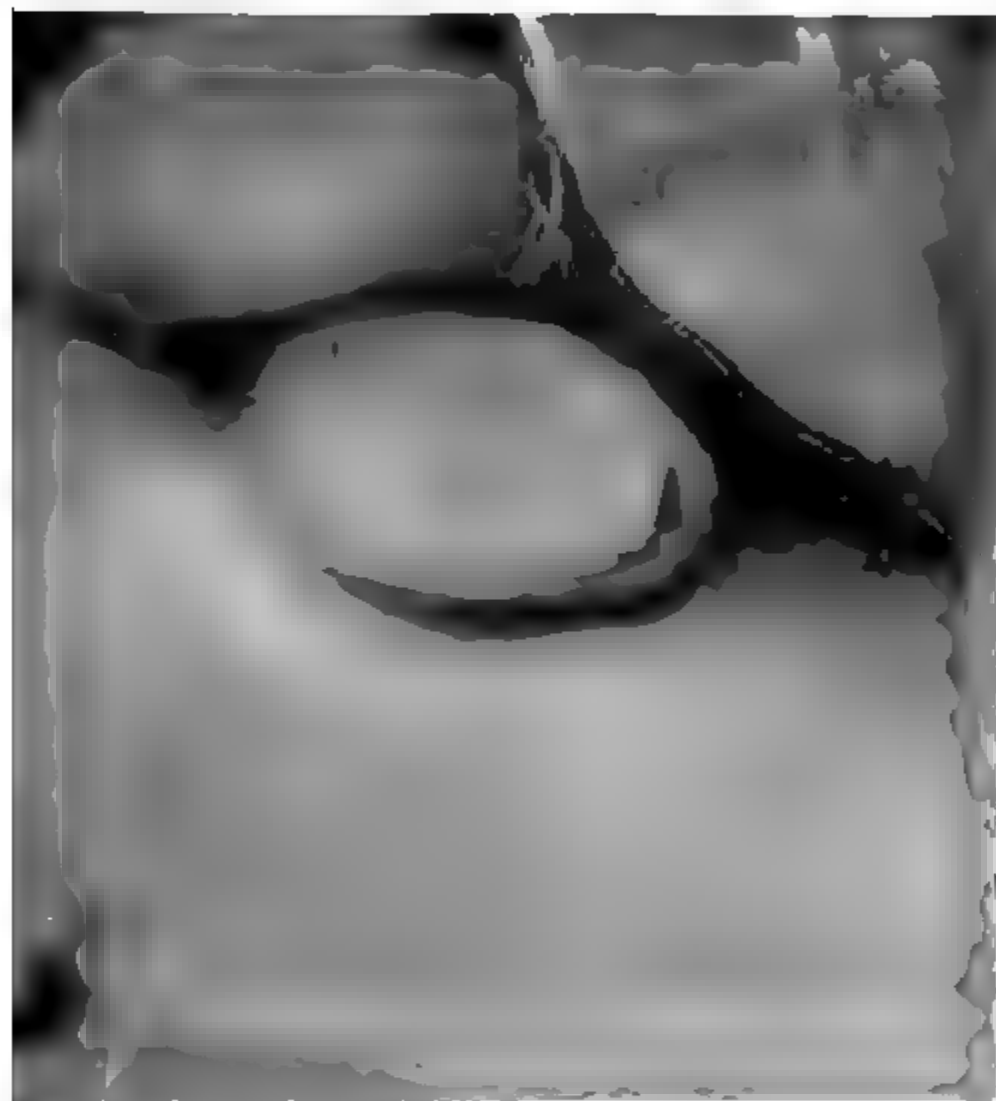
The fingers can be made to meet above the fundus, enclosing nothing but vaginal wall and peritoneum. There is no trace of the sacro-uterine ligaments to be detected by palpation. The perinæum is short, and after reduction of the uterus there remains marked rectocele and cystocele. The accompanying photograph well shows the condition present.

On August 25, 1902, the operation described above was done. When the uterus was drawn up by the traction ligatures to its full height, its fundus projected  $1\frac{1}{2}$  inches beyond the skin level of the abdomen, showing the great relaxation of the vaginal walls and broad ligaments. The fallopian tubes were normal, the ovaries slightly cystic. After the operation upon both sets of ligaments the abdomen was closed by triple suture, and sealed.



er operation there is still marked recto- and cysto-

gust 26.—Urine was passed naturally. Slight vomit-  
ter anæsthetic. There is no pain over the sacrum  
where. Abdomen is supple. Temperature normal  
a.m., when it rose to  $99.6^{\circ}$  falling to normal by 10 a.m.  
ne day. Respiration, 24-30, Pulse, 80-84.



Case of *Procidentia*; actual condition in M. A. M. before operation

rust 31.—Period began. Sharp pain before for about  
ir and situated above the pubis. Has lost more than  
last two or three years, during which time it has  
anty and unsatisfactory, coming on for a few days,  
, and returning again. She thinks this period

much more natural, and feels better after it than she has done since the uterus came down. Period lasted five days.

*September 8.*—Abdominal wound healed. Tait's perinaeorrhaphy with interrupted buried sutures performed. The deeper tissues have so far retracted that the needle has to be carried close to the ascending pubic rami before sufficiently resistant material can be found for satisfactory reunion. Even when finished the space immediately in front of the sphincter does not seem sufficiently firm. Surface sealed by celloidin.

*September 9.*—Urine passed naturally at 4 a.m.

*September 17.*—Abdominal sutures removed.

*October 6.*—Returned home well and perfectly sound. There was some little delay after the last operation, due to the presence of pus in the tip of the vaginal flap, and it was feared that one of the buried sutures might be infected, but douches with creolin cleared this up, and no suture was extruded. The temperature throughout the whole stay in hospital never rose beyond  $99.4^{\circ}$ .

Shown at Stockport on November 20, 1902. Result confirmed by examination by three members of the Society, one of whom was the President, and another the previous medical attendant who had been present at her confinement, which he described.

Although the number of cases is but small, they are perhaps sufficient to show not only the practicability of the operation, but the good results to be expected from it. Its claim to be considered a rational attempt to attack the problem of prolapsus uteri in a scientific manner will rest upon the due consideration by operators of the anatomical conditions present in these cases, and their appreciation or otherwise of the various arguments I have endeavoured to set before you.

Mr. JESSETT said he thought the thanks of the Society were due to Mr. Stanmore Bishop for bringing before its notice this very important subject, and he thanked Mr. Bishop for so courteously referring to the fact that, in a paper read by him (Mr. Jessett) before the Society last year, attention was drawn to the importance of restoring the

utero-sacral ligaments when operating for prolapse or procidentia of the uterus. In discussing this subject, it is important to consider the reason of the uterus dropping. I think it will generally be agreed, as Mr. Bishop has pointed out, that the fundopubic ligament and the attachment of the uterus to the bladder have very little to do with keeping the uterus in its normal position, and that on the contrary the bladder may often be one of the primary causes of prolapse of the uterus, acting mechanically, for if the bladder is frequently allowed to become over-distended, it throws an extra strain upon the utero-sacral ligament by keeping the uterus in more or less a vertical position, and this strain becomes the greater if the patient suffers from constipation. In the normal position the weight of the intestines tends to keep the uterus in its place, but directly the organ assumes a vertical or retroverted position, the weight of the intestines acts directly as a *vis a tergo*, and assists in forcing the uterus downwards into the vagina. Those were the arguments that in the first place induced me, when performing ventrofixation of the uterus, to urge the necessity of restoring these important ligaments. Most gynæcologists who have practised ventrofixation for prolapse have, I take it, experienced the disappointment that often attends their efforts. Sooner or later, in many cases, the attachment to the abdominal wall will become elongated and stretched, and the uterus will gradually prolapse again. Now this trouble can only be overcome by restoring the hinge or sacro-uterine ligament, thus slinging up the uterus posteriorly and allowing it to assume its normal position. I have not, however, at present trusted entirely to the shortening of these ligaments alone to retain the uterus in its proper position, and so far as I can gather from his paper, neither does he, as he shortens the round ligaments, and also repairs the perinæum. So far we both agree, but Mr. Bishop's operation differs from mine in so much that when I have placed the patient in the extreme Trendelenberg position and drawn the uterus well forward,

an assistant passes a long pair of forceps into the vagina, pushes the posterior fornix firmly up, and by opening the blades puts it upon the stretch; avoiding the vaginal mucous membrane, I then, by means of a darning stitch, pass two or three sutures in and out through the tissues as often as the length of the elongated and stretched fornix requires, commencing at each side of the rectum, and finally, catching up the muscular tissue of the uterus nearly opposite to the internal os, tie each suture firmly but not too tightly. If the round ligaments are very much stretched I prefer to double these upon themselves and secure them with two or three fine silk or chromic gut sutures. I have never trusted entirely to the shortening of the sacro-uterine ligaments, as although the hinge is restored, yet I should fear that, should the perineal support be weakened and left unrepaired, future trouble would result. This is evidently Mr. Bishop's view also, as in the two cases he reports perinæorrhaphy was also resorted to. I can, however, quite realise that in many slight cases the restoring of the sacro-uterine ligaments would be quite sufficient to keep the uterus in its position. When the cervix is greatly hypertrophied it may be necessary to amputate the hypertrophied portion, as well as to perform perinæorrhaphy, but to discuss this would be outside the scope of Mr. Bishop's paper. Mr. Bishop has alluded to cases which can be attacked through the vagina. I have in two severe cases of procidentia operated in this way; reflecting a diamond-shaped strip of mucous membrane from the posterior vaginal wall, with the apex of one end at the junction of the mucous membrane with the uterus, I then unite the deep muscular edges by passing a deeply curved needle with a chromic gut suture, uniting the two extreme points of the divided parts at the cervix uteri and sacral point, catching up the tissues in one or two places according to the length of the denuded surface to be shortened, and ending in the aponeurotic tissues at the side of the rectum. Two similar sutures are passed, first on one side, then

on the other, and tied, thus uniting the extreme points, and the mucous membrane is then stitched transversely with continuous ten-day gut, so burying the deep sutures. By this operation it will be seen that the os and cervix are drawn completely up to their normal position. The incision in the vagina, which was made longitudinally, becomes transverse. Since performing this operation I have read Bovée's interesting paper (*American Journal of Obstetrics*, July, 1902). He says the ligament can be brought plainly into view by careful dissection; I hardly think this is necessary. He also shortens the round ligaments through the anterior fornix. In neither of my cases did I do this. I finally perform perinæorrhaphy if necessary. One case was that of a very stout lady, who was quite incapacitated from taking any exertion in the way of walking, gardening, &c. Now she can bike and ride, and enjoy her life better than she has done for years.

In very severe cases, I certainly should feel it safer to adopt ventrofixation as well as shortening the sacro-uterine ligaments. In such cases I think every object would be met by ventrofixation with ten-day catgut passed through the peritoneum and transversalis fascia only, so that practically there would be merely a peritoneal ligamentous attachment connecting the anterior surface of the uterus to the parietes. This would get over the objection which Mr. Bishop very properly raises to the fixation of the organ by the combined operation of ventrofixation and shortening the sacro-uterine ligaments. I would strongly urge upon Fellows who are constantly having these distressing cases brought to their notice, to give the suggestions so admirably described by Mr. Bishop in his paper, and described and practised by myself, their careful consideration, and also to read his paper alongside of that published by Bovée. I am convinced that the principle is good, but doubtless the details of the operation require much perfecting, and I shall hope in the future to find that some of the distinguished Fellows of this Society will, in the near future, be able to

report the relief of many poor women whom they hitherto had looked upon as hopeless invalids.

Dr. MACNAUGHTON-JONES said that it was only right to remember that Schultze had over twenty years ago entered fully into the part played by the retrouterine and utero-vesical folds in the production of retroflexion and prolapse. In fact, his entire treatment of these conditions was based upon the part taken by these structures in maintaining the uterus in its normal position. Very little had been added to our knowledge of the etiology of prolapse since Schultze wrote on it. Before adopting a new procedure we should contrast it with other operative measures which might be suitable in cases in which it was not indicated. For his part, he believed that the important point to press in regard to prolapse was its prevention rather than its cure. The recognition of the early stages of prolapse, and the causes which were contributing to its occurrence, enabled us, by proper palliative measures and simple operative steps, to anticipate and prevent it. Thus more serious and extensive operations were rendered unnecessary. It was certain that by other operative procedures than that advocated by Mr. Stanmore Bishop, most satisfactory and permanent cures were effected. Everything depended upon the stage and degree of the prolapse. Referring to some of these procedures, he said that different operators were wedded to the methods which they practised themselves, but which others had abandoned, for example, to vaginal colpotomy with fixation, which Mr. Bishop would altogether discard. For example, Auguste Martin, of Greifswald, who must have operated upon many hundreds of these cases, always adopted vaginal fixation, and at the same sitting, if necessary, performing anterior and lateral colporrhaphies, perinæorrhaphy, and amputation of the cervix, every case being preceded by curettage.

After a few remarks by Dr. ROUTH, on the suggestion of the Chairman the discussion was adjourned to a future meeting, Mr. Bishop reserving his reply.

**BRITISH GYNÆCOLOGICAL SOCIETY.**

THURSDAY, JANUARY 8, 1903.

SIR JOHN HALLIDAY CROOM, F.R.S.E., PRESIDENT,  
IN THE CHAIR.

**ANNUAL MEETING.**

[The Report of the Treasurer was held over till the February meeting in order that the Balance Sheet might be audited before presentation.]

*Editor's Report.*

THE increasing demands of his private practice having compelled Dr. Macnaughton-Jones, junior, to resign his position as assistant Editor before the issue of the February number of the Journal, the Council of the Society, on the recommendation of the Journal Committee, requested me to undertake that portion of the work which he had so efficiently performed, and I am accordingly responsible for the report of the Proceedings of the Society as they appear in the current volume of the Journal, as also for the shorter accounts of them in the weekly medical press. I am, however, gratefully indebted to the late assistant Editor for the assistance he gave me in regard to the reports of the meetings in November and December, 1901, and in January, 1902.

In the four numbers of the Journal published during the year 1902, the Proceedings occupy 244 pages, original contributions other than such as are included in the Proceedings, 105 pp., Reviews, &c., 31 pp., and the Summary of Gynæcology and Obstetrics, 228 pp.; the balance, in-

cluding the Index, Table of Contents, &c., and the List of Fellows, brings the gross total to 654 pp., which is rather more than that for the year 1901, and slightly in excess of the 40 sheets recommended by the Journal Committee last year. This excess is accounted for by the change in the type of the Summary in the Volume commenced in the May number, from long primer to small pica solid, by which a material saving in cost has been effected.

By the direction of the Journal Committee, which has met four times during the year, I obtained the permission of the Council of your Society, and made a digest of the entries on the Minutes of the Council relating to the management of the Journal. This digest has been inserted in the Minutes of the Journal Committee, and with the filing of all reports from the Committee to the Council, and the preservation in an accessible form of any important papers upon which such reports are founded, will be a valuable aid in the future conduct of the Journal.

The recent volumes of the Journal have been enriched by many plates and illustrations, greatly owing to the liberality with which the authors have borne part, and in some instances the whole, of the cost. During the past year, in addition to numerous figures in the text, the Journal has contained 16 plates, of which 3 are beautifully coloured; these we owe to the munificence of our President, Sir J. Halliday Croom, and to that of Dr. Macnaughton-Jones and Mr. Stanmore Bishop. As there was very little definite instruction on the Minutes of the Council as to the amount the Editor might expend on illustrations, I submitted a special report upon the subject, which was accepted by the Council, and from which, as of general interest to those Fellows who may wish their contributions illustrated, I venture to extract the following recommendations: "Contributors who desire their articles to be illustrated should always send drawings (or photographs) suitable for reproduction, or proof prints, to the Editor, with their MSS. They should, as a rule, have the blocks prepared under



their own supervision, as the illustrations are then more likely to be satisfactory ; save in most exceptional cases, the Journal will only bear a proportion of the cost, and the amount at the discretion of the Editor has been strictly limited by the Council."

I have submitted to the Journal Committee some correspondence I have had with our publishers in reference to the adoption of a different paper for the Journal, one that is more smoothly finished, and that will, therefore, give better impressions of figures in the text. From samples I have seen I believe this can be done without increasing the cost of production. The proposed change would not be made before the May number, the commencement of the XIXth. Volume, and will, of course, have to come before the Council, and be approved of by them.

In conclusion, I would thank those Fellows of the Society to whom I am indebted for assistance in the Summary, or for reviewing, often anonymously, works sent to me for the purpose. My thanks are particularly due to Professors A. V. Macan and J. W. Taylor, to Mr. Furneaux Jordan and to Dr. Edge and Dr. Hebert.

(S.) J. J. MACAN.

Dr. J. J. MACAN having read the Report as above—

Dr. HEYWOOD SMITH moved "That the Report as read be accepted, and that the thanks of the Society be expressed to Dr. Macan for his services as Editor." Dr. BEDFORD FENWICK seconded this motion, which was carried, and the PRESIDENT, in conveying the thanks of the Society to Dr. Macan for his services, said that he had much pleasure in adding his personal appreciation of the very able way the Journal of the Society had been conducted.

The election of Office Bearers and Council for the current year was then proceeded with, Dr. Roe Carter and Dr. Aarons being appointed scrutineers, and resulted in the following appointments :—

*Hon. President.*—R. Barnes, M.D., F.R.C.P.

*President.*—Heywood Smith, M.A., M.D., M.R.C.P.

*Vice-Presidents.*—E. Stanmore Bishop, F.R.C.S. ; Professor Murdoch Cameron, M.D. ; John Campbell, M.A., M.D., F.R.C.S. ; F. W. N. Haultain, M.D., M.R.C.P. ; Skene Keith, M.B., F.R.C.S. ; Professor L. Landau, M.D. ; H. Macnaughton-Jones, M.D., F.R.C.S.I. ; J. A. Mansell Moullin, M.A., M.B., M.R.C.P. ; Christopher Martin, M.B., C.M., F.R.C.S. ; F. F. Schacht, M.D., B.A. ; John Shaw, M.D., M.R.C.P. ; Professor Alfred Smith, M.B., F.R.C.S.I.

*Treasurer.*—Wm. Travers, M.D., F.R.C.S.

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*Editor of the Journal.*—J. J. Macan, M.A., M.D.

*Hon. Secretaries.*—J. H. Swanton, M.A., M.D. ; S. Jervois Aarons, M.D.

*Auditors.*—C. H. Bennett, M.D. ; F. A. Purcell, M.D.

*Trustees of the Property of the Society.*—G. Granville Bantock, M.D. ; R. S. Fancourt Barnes, M.D., F.R.S.E. ; Clement Godson, M.D., M.R.C.P.

Dr. MACNAUGHTON-JONES read notes of—

#### CASE OF TWINS AFTER SALPINGO-OÖPHORECTOMY AND RESECTION OF THE OTHER OVARY.

The patient, aged 26, who had had five pregnancies with labour at full term, first consulted me three years since. She was then suffering from all the symptoms

attendant upon chronic suppurative endometritis. There was a very profuse discharge with an extensive and deep cervical erosion. She had been treated for the erosion and endometritis for some time before I saw her. Both ovaries were enlarged and painful, the left especially so. The uterus was subjected to most thorough curetting, with the application of chromic acid internally, and nitric acid to the eroded surface, the result being a complete cure of the endometritis and erosion. Pelvic pain, however, still continued, with difficulty of locomotion, and on February 21, 1901, I removed a large cystic ovary with a thickened and dilated tube, and resected the other, which was studded with small cysts. She quickly recovered from the operation, but for some time the course of the case was not very satisfactory, as she still complained of pelvic pain, and there was sensitiveness of the remaining ovary. However, on June 4, 1902, she was confined of twins under the care of Dr. Frederick Evans of Cardiff. Her labour was a very quick one. The sex of both children was female, and there were two amniotic sacs and two placentæ.

#### REPEATED PREGNANCIES AFTER SALPINGO-OÖPHORECTOMY AND VENTROFIXATION OF THE UTERUS.

The following notes have been supplied to me by Dr. William Bourke :—" Patient, aged 26, consulted me in April, 1897. Ten weeks after marriage she had had an accident causing miscarriage, for which she was casually treated, being in bed for two days only. Since then she has never been well—sacral aching, fatigue, great pain before and during the periods, walking producing much pelvic distress. Had consulted two specialists. One put her under the 'rest' cure; the other told her to forget her pain and take a long sea voyage. Her husband took her to Australia, and she suffered much increase of trouble during the voyage, and was entirely laid up in

Australia. She came home as soon as she could travel, much the worse for her trip. Six months after this she consulted me. I found a retroflexed uterus with the left ovary in Douglas's pouch, swollen, not movable, and very tender. Finding it impossible to keep a pessary of any kind in the vagina, and no good resulting from palliative treatment, I advised operation, but was overruled by three consultants consecutively. I then treated the unhealthy catarrhal state of the os and cervix in the hope of producing conception, which fortunately occurred, and I safely delivered her at full term. In spite of every precaution after delivery the uterus returned to its former position, and the ovary continuing to give trouble, life became a burden to her. I again advised operation, and had consultations with three other specialists, who were not in favour of it. I told her family that it was useless to try to do more, and there appeared no alternative save chronic invalidism." At Dr. Bourke's request, I saw her in October, 1899, and operated on November 8, removing the left ovary and performing ventrosuspension. Dr. Bourke summarises the result in the following words: "The result has been perfect from a surgical, and exceedingly so from a matrimonial point of view, for the patient has been twice confined at full term of healthy children, without the smallest complication. A third conception, however, ended in a miscarriage." The uterus has all through maintained its normal position.

The PRESIDENT mentioned an instance in which conception and miscarriage followed the complete removal of both ovaries by himself; the possibility of a third ovary suggested itself.

Dr. MACNAUGHTON-JONES said that in the first case only about one-third of the second ovary had been removed, and, in reply to a question of Dr. Heywood Smith's, that he had, as was his custom, used prepared gut for ligature.

LARGE SARCOMA OF THE UTERUS REMOVED BY ABDOMINAL HYSTERECTOMY; BLADDER LAID OPEN; RECOVERY. BY WILLIAM DUNCAN, M.D., M.R.C.P., F.R.C.S., &c., Obstetric Physician to the Middlesex Hospital.

The patient, aged 56, was admitted into Prudhoe Ward of the Middlesex Hospital on September 26, 1902, complaining of increasing size of the abdomen, swelling and pain of the legs, with progressive emaciation and weakness for the last twelve months.

*Family History.*—One sister died of “flooding” at the age of 42, and her grandfather is said to have died of cancer; nothing else of importance.

*Previous History.*—The patient had rheumatic fever twenty-five years ago. Has been a widow for six years after twenty-four years of married life, during which she was only once pregnant, nine months after marriage, and she then “miscarried.” The catamenia began at 15½; were always regular, lasted six days and the loss was rather scanty. The menopause occurred eight years ago without any trouble. Ten years ago she complained of pain in the right iliac fossa, was examined by a medical man, who found a small lump there; this swelling has gradually increased in size until six months ago, since when the increase has been rapid, and the patient has appreciably lost flesh and strength. She has lately suffered from indigestion and frequency and slight difficulty in micturition. No constipation.

*State on Admission.*—The patient is a pale, emaciated woman. The abdomen is greatly enlarged (more than at a full-term pregnancy), the skin is tense and distended, marked by superficial veins coursing over it and presenting red pigmented spots, “tâches de Morgan.” On palpation, the abdomen is found to be occupied by a tumour which is solid in some parts and cystic in others; rather uneven on the surface. No thrill to be felt, nor anything abnormal on auscultation.

*Per Vaginam.*—Os uteri is felt high up ; cervix small and closely connected with a mass which dips into pelvis from above ; sound not passed. The history and clinical features pointed to an ovarian tumour, probably undergoing malignant change.

*Operation on October 2.*—The patient having been anæsthetised with gas and ether, a median incision was made between the umbilicus and pubes ; the tumour was seen to have huge veins coursing over it, and in places the bowel and omentum were adherent. The incision was then extended up to the xiphoid cartilage in order to thoroughly examine the connections of the growth and to decide on the advisability or otherwise of proceeding with the operation. It was evident that the tumour occupied both broad ligaments, but owing to its size and the universal adhesions it was impossible to say definitely where it sprang from. Having decided to proceed, I began to detach the adherent gut and omentum. Whilst doing this I laid open (in the middle line and above the level of the umbilicus) a cavity from which escaped some clear odourless fluid. Thinking it to be a cyst, I opened it down to the extent of about six inches, and then found it was the urinary bladder. Having separated this viscus from the surface of the tumour, I carefully closed up the opening I had made by means of a series of silk sutures passing through all the bladder coats. I also put in a few fine silk stitches through the peritoneal coat alone. The fundus of this greatly elongated bladder I fixed to the abdominal wall, just above the symphysis pubis, with a silk suture. Finally, after a most difficult operation, I got the tumour out of the abdomen, and having tied all bleeding vessels, cut across what proved to be the cervix uteri, leaving quite a small stump of the cervix. By uniting behind the posterior layer of each broad ligament I formed a cavity large enough to hold an adult head. At the bottom of this was the small stump of the cervix. The upper margin of the cavity in the broad

ligaments was next sutured to the lower end of the abdominal incision, leaving an opening through which the cavity was loosely stuffed with iodoform gauze. The remainder of the abdominal wound was then closed with three layers of sutures, and dressings applied in the usual way. The amount of blood lost was not much, and the patient stood the operation (which lasted one and three-quarter hours) well. The urine was ordered to be drawn off every three hours, so as to prevent any chance of distension of the bladder.

The patient made an uneventful recovery. For the first three or four days the urine was blood-stained, but then became normal and was passed naturally after five days. At first there was a good deal of blood-stained oozing from the gauze filling the cavity in the broad ligaments, but this got gradually less, and the cavity steadily contracted, so that the amount of gauze used became less and less until at last only a small sinus remained, and the patient was sent to the convalescent home at Clacton-on-Sea on October 30, five weeks after the operation.

*Remarks by DR. DUNCAN.*

This case presents several points of interest.

(1) *Difficulty of diagnosis.*—It seems to me that it was quite impossible to give a positive diagnosis in this case (as it is in so many others) until the abdominal cavity had been laid open. There was no history of uterine trouble; the tumour began, or was first felt, in the right iliac region; it had the characteristic feel of a multilocular ovarian. Even after the abdominal cavity had been freely laid open, I was unable to say where the tumour sprang from. When removed it weighed thirteen pounds, but it was now very much contracted.

(2) The opening up of the bladder was due to its having been so closely adherent to the tumour and dragged up above the level of the umbilicus. Opening the bladder

during the course of removal of uterine or ovarian tumours is not, I believe, a very uncommon accident. Personally, I have always been very careful to try and avoid doing so, and this is my first experience in my own practice of this accident. When it does occur, what is the best treatment? This subject has been thoroughly discussed by Dr. Charles Greene Cumston, of Boston, in a paper entitled "Lesions of the Bladder during Abdominal and Vaginal Hysterectomy," which appeared in the *Boston Medical and Surgical Journal*, November 21, 1901. Dr. Cumston kindly sent me a month ago a reprint which I only wish I had read before the accident just related occurred. There are numerous methods of suturing the wounded bladder, but Dr. Cumston advocates two layers of sutures—a catgut suture uniting the mucous membrane and a second Lembert suture (also of catgut) uniting the other coats. He also says that if the rent be a long one, it is advisable to put in a third layer, uniting peritoneum alone. Dr. Cumston lays great stress on the importance of putting a self-retaining catheter into the bladder for about ten days, and changing it every four or five hours for a fresh one. This advice appears to me sound, and if it should be my ill fortune to again open the bladder during an operation I should follow Dr. Cumston's method, even though in the case I have recorded no ill-effects resulted from passing a catheter every three hours.

(3) When a cavity is left after the removal of a tumour from between the layers of the broad ligament, my usual method is to obliterate that cavity at the time of operation by whipping the sides of the cavity together from below upwards by a continuous suture and thus obtaining immediate union, instead of packing the cavity with gauze and letting it slowly contract up. In this case, however, the cavity left by the opening up of *both* broad ligaments was so large that I had no alternative left but to adopt the slower method.



*Lastly.*—With regard to the tumour itself: Owing to the sarcomatous masses being encapsuled, there appears to be a much better chance of the patient escaping recurrence. I wish that I had removed the small bit of cervix still remaining. The patient, as far as I am aware, continues well, but it is yet too early to say whether she will recover completely.

Dr. BEDFORD FENWICK said that in operating upon a large tumour which dragged the bladder upwards and was firmly, perhaps densely, adherent to it, every operator of experience knew that it was sometimes difficult to avoid wounding that organ. But in such cases, as a rule, the injury was very slight, because careful measures were taken to lessen the risk. For example, a very useful precaution, always adopted at the Soho Hospital whenever there was any question of the bladder being so displaced, was to pass a sound and make sure of its position. When a cavity in the broad ligaments was left too large to be entirely obliterated, and yet where there was oozing which could not be completely checked, he, and some of his colleagues, had found it well to whip the edges together so as to completely shut the bleeding sac in the broad ligament off from the peritoneal cavity, first making an opening into the sac from the vagina; the vacant space then collapsed downwards, and the healing was very much more rapid, the abdominal wound not being disturbed nor any fistulous tract left which might perhaps remain open for weeks.

Dr. HERBERT SNOW thought that Dr. Duncan was to be congratulated on his success in dealing with a very difficult case. The existence of the tumour for ten years seemed to point to its being an instance of malignant degeneration of a primarily innocent fibroid; the specimen under the microscope clearly showed its cancerous nature. It was a matter of regret that one could not distinguish between myo-sarcoma and true sarcoma produced from connective tissue; he doubted whether the latter ever arose in the uterus, though it might spring

from the broad ligament, ovary or tube, and thence implicate the uterus.

Mr. BOWREMAN JESSETT concurred with Dr. Fenwick as to the advantage of vaginal drainage. It was the usual practice at the Cancer Hospital, and they found that generally the cavity closed in two or three days, when the gauze drain could be safely removed. He had, to his regret, opened the bladder once or twice by accident; in these cases he had sutured the mucosa with catgut and then stitched the peritoneum by Halsted's method, which he preferred to Lembert's; he had found one layer of sutures, in addition to those uniting the mucosa, sufficient. In one instance, in which the tumour weighed sixteen pounds, he had had the misfortune to find at the last moment, after the tumour had been removed, that the ureter had been divided in two places; as he could not detect the upper end, he concluded that it had been included in a ligature, and that the kidney would atrophy, but this unfortunately did not occur. The patient was in such a collapsed condition a prolonged search was not admissible. The case ended fatally. In all vaginal hysterectomies he adopted the plan of leaving a self-retaining catheter in the bladder for the first two days, with the end led into a male urinal between the patient's legs; this kept the bladder empty, and saved the patient the worry of having an instrument passed every four or six hours; this plan he also adopted in cases in which the bladder had been injured. He asked Dr. Duncan whether the patient had had no cystitis or other bladder trouble before the operation.

Dr. MACNAUGHTON-JONES thought that the precaution of passing a sound into the bladder ought never to be omitted in any case of hysterectomy. He had had the misfortune to open the bladder once in removing a giant myoma; he closed the aperture, which was not a small one, by a single layer of suture, introduced a self-retaining catheter, and the woman recovered perfectly.

After such an accident there was apt to be some bleeding into the bladder. In the case just mentioned he had given adrenalin to control such hæmorrhage, yet nearly a fortnight afterwards the patient passed an organised clot by the urethra. Nevertheless he thought such coagulation was less likely to occur when the urine was allowed free and constant discharge through a self-containing catheter. Coley had given several instances of elevation of the bladder by a tumour unaccompanied by any vesical symptoms, and mentioned one in which he had removed a portion of the wall as large as the palm of his hand, yet the woman got perfectly well. He (Dr. Macnaughton-Jones) saw no advantage in vaginal drainage of such a cavity as that described, provided perfect hæmostasis had been secured.

Dr. DUNCAN, in reply, said that the passage of a sound was undoubtedly a valuable proceeding, but he could not agree with Dr. Bedford Fenwick as to the advantage of vaginal drainage, which he considered, unless there was danger of the accumulation of blood in the cavity, introduced an unnecessary element of danger from infection. As to the tumour, in the recent condition it resembled a myoma, and he quite agreed with Dr. Snow and Mr. Jessett that a sarcoma could not have been going on for ten years, and that the case was one of secondary malignant degeneration. He was not inclined to use a self-retaining catheter in vaginal hysterectomy, he had never done so, and from the cystitis he had seen caused by the proceeding in cases of perineorrhaphy in his student days, he did not think he ever should, but admitted that it might have been wiser to introduce one in this case. Of the ureters he had seen no more than their openings into the bladder. The patient, when particularly questioned, said she had had slight frequency and also difficulty of micturition, but she had not volunteered any complaint of vesical trouble.

Mr. BOWREMAN JESSETT showed a specimen of an

ectopic gestation removed about two hours previously from a patient supposed to be suffering from obstruction of the bowels for the past five days. When he first saw her at 2.30 p.m. she had begun to vomit and presented all the symptoms of her supposed condition. At 5 p.m., provided with a Paul's tube, he made an incision for a cœlio-colotomy, proposing to open the colon and insert the tube, and afterwards deal generally with the bowel, but directly he opened the peritoneum an enormous quantity of black venous blood gushed out. Introducing his hand, he turned some two quarts of blood-clot out of the pelvis, and, to his astonishment, found an ectopic gestation in the left broad ligament, which he was able to pull up, ligature on both sides, and remove, but it took him three-quarters of an hour to stop the bleeding. The intestines were enormously distended, came out in a body, and greatly impeded the operation. A long tube passed up the rectum removed much of the flatus from the colon and ileum; to relieve the jejunum he had to make an incision into the gut about half an inch long, which after the bowel was evacuated he sewed up again, and then returned the bowels into the abdomen and closed the wound. The patient, aged 36, had not been pregnant for nine years, and it was not until after the operation that it was ascertained that she had missed one period. She had complained of umbilical pain for nine days, and probably the hæmorrhage had been going on for that time. The case was a very unusual one, as there was nothing to lead him to suspect a pregnancy; he hoped to report further upon it at some future date.

The President, Sir J. HALLIDAY CROOM, then delivered his Valedictory Address, dealing chiefly with

## GYNÆCOLOGY AS A SPECIALITY.

I think I may congratulate you upon the work which the Society has accomplished during the past year. And specially would I like to say that the specimens which have been shown and discussed have been exceedingly valuable and most instructive. I think there is more to be learnt from the careful discussion and exhibition of specimens than probably from the actual reading of papers. At the same time I think that the interests of the Society might be further enlarged by what I should call "clinical evenings." It is not, of course, possible to exhibit patients at our meetings so as to enhance—as the members of other medical societies can do—the value of their papers, but I think we might often set apart meetings for the discussion of purely clinical matters, meetings at which those of our Fellows who are engaged in general practice, and not only as operative gynæcologists, might take a prominent part. Although, as its name implies the Society is a Society for specialists, yet its *personnel* includes a number of men who are not specialists. I think both for their sakes, and the sake of the specialists also, that papers on subjects of a less purely operative and scientific character than those generally brought before us might with advantage be introduced.

That specialism in medicine is needful, and that to specialising we owe a great advantage in medicine, there is no doubt. The need for specialism arises from the vastness of the field of work which is opened to us. And this vastness of the field, this great increase of scientific knowledge, is largely due to the enormous changes that have taken place in our means of obtaining this knowledge.

No more interesting memoir has been published of late years than that of Sir James Paget. It is full of interest from beginning to end, but what most interested me in reference to our own department of medicine was the

fact that Sir James Paget was, in his early days, as regards the rest of the scientific world, in a position of most "splendid isolation," for he tells us how exceedingly few, even of his teachers, had any knowledge of a foreign language, and how he—a first year's hospital pupil—was invited by men like Marshall Hall and Kernan to go to their private houses and translate to them some of Johannes Müller's works. And he relates how Stanley, then lecturing at St. Bartholomew's Hospital, not only on anatomy, but also on physiology, was indebted to this mere beginner for information about many of Müller's discoveries, which, as Paget aptly remarks, Stanley incorporated into his lectures, as one might now tell the latest and rarest telegraphic messages from some distant field of great research. You will see, therefore, that it was possible for Paget in his early days to be not only a physiologist and a pathologist, but also a surgeon. It is due entirely to extraordinary and almost unique powers of work that Paget stands out pre-eminently as the latest and most able representative of this old order, and also as the man whose genius enabled him to become the pioneer of the existing order of affairs; for though it was said of him by one so well qualified to give an opinion as Sir Richard Owen, that he might be the first physiologist in Europe. Paget, when, after his many weary years of waiting, he got really into private practice, gave up his physiological work altogether except in so far as indirectly, through pathology, it had a bearing on the practice of his surgery. But Paget saw greater changes than this partial separation between scientific research and practical work, and he also was one of the first to recognise the field of specialism in surgery. For, long before he gave up operating, he tells us he had given up doing special operations, and that for the reason that whereas in his younger days he could frequently say with regard to his scientific reading that he "had read everything" bearing on the subject, he found in his later days, as science became more cosmo-

politan, that no man could keep abreast of the advances in all departments.

This subdivision of surgery, beginning shortly after the middle of the last century, went to such an extreme that, in the century's closing decades, it seemed as if the old familiar general surgeon would almost become extinct. It was in this period of the multiplication of specialists that the gynæcologist arose, and now, when we are face to face with the fact that the multiplication of specialists has reached its limit, and that some classes of so-called specialists must return to the decimated ranks of the general surgeons, it would be well to consider some points in connection with this question as it affects our own department.

Gentlemen, whatever our future may be, whatever the future of the youngest branch of surgical science may be, or whatever place it may occupy in the sciences, one thing remains, that in its short lifetime it has made more substantial and remarkable progress than any other branch of surgery, and I think I may with perfect safety claim that our Society has played no inconsiderable part in this consummation, and I have only to recall the name of Tait and of others who are still with us, whose names are for ever associated with the advancement of the science, to make good this claim.

Now, gentlemen, how does the matter at present stand. The gynæcologist, little by little, is encroaching on the domain of the surgeon, and the surgeon is equally rapidly encroaching on the domain of the gynæcologist. Where is this to end? If it is competent for a general surgeon to do hysterectomy, then I presume it is equally competent for a gynæcologist to do gastrostomy.

It seems in this general dispute somebody must yield—either the surgeon must absorb gynæcology once and for all, or the gynæcologist must become a general surgeon. Gentlemen, it is not so abroad, one of the best operators that I know is Ségond, and is Ségond not a

general surgeon? Doyen undoubtedly began as a gynæcologist, but now no part of the human body—from the cranium to the sole of the foot—is beyond his interference. The same obtains among provincial surgeons in England, and perhaps I may be allowed to instance my friend Mr. Mayo Robson, and among many other Fellows of our society, I believe. Of course, obviously, where the general surgeon must inevitably find his difficulty in gynæcology pure and simple, is his necessarily meagre acquaintance with pregnancy and local examination, and therefore it must be obvious that the surgeon must, in many cases, fall back upon the obstetrician to have the knotty problem of pregnancy excluded. The want of this knowledge on the part of the operator has given rise to more mistakes within my own knowledge than I care to refer to.

In Edinburgh those who are in gynæcology are obstetricians as well. The Professor of Midwifery, who is *facile princeps* of operators north of the Tweed, not only is a consultant in obstetrics, but he practices obstetrics as well, and all his followers, of whom every specialist in Edinburgh is one, have followed his excellent example. We have all held our posts for longer or shorter times in the Maternity Hospital, and therefore, practising as we do in Edinburgh, both obstetrics and gynæcology, that difficulty, of course, does not arise.

I have heard it said that gynæcology, pure and simple, is not a field sufficiently large to support a gynæcological surgeon. Probably it is not, but associated with obstetrics, it is a sufficiently large speciality. Of course, I quite recognise that a man doing a large practice in obstetrics would find some difficulty in overtaking gynæcology as well, but then no consulting obstetrician ought to have a large midwifery practice.

What, then, is the outcome of the matter? By the very meaning of the word a gynæcologist means one who interferes with the organs that are the special property of women. I am not aware that the appendix.



or the liver, or the kidney, or the stomach, are different in the one sex and the other, and I do not see, therefore, that they necessarily come under the domain of the gynæcologist at all. What belongs to him is the uterus and its appendages, and, indeed, the whole genito-urinary tract. That, combined with obstetrics, leaves a man ample room to specialise. On the other hand, if the old Latin proverb is true, *Nihil humanum a me alienum puto*, and if the whole abdomen is to be the field in which the gynæcologist is to work, then, gentlemen, it is clear that we must cease to be gynæcologists and become simply abdominal surgeons. But why only abdominal surgeons? Why not general surgeons?

I know perfectly well that in what I am saying I lay myself open to misconception as, apparently, not appraising at its full value what the surgical gynæcologist has done, and what surgical gynæcology has gained as a separate branch. I am fully alive to that, but at the same time I should like to ask now, is gynæcology, having finally, as it were, become almost a perfected science, to be handed over to the general surgeon, or to remain a speciality? If it is to be handed over to the surgeon then there is nothing more to be said. If it is to remain as a speciality, I think it should be associated with obstetrics.

If the gynæcologist is to proceed from the uterus to the ovaries and the appendix, from the kidney and the gall-bladder to the stomach, I would like to know how much surgery is to be left for the surgeon? If, on the other hand, the surgeon is to proceed from the stomach until he has reached the perineum, I wonder how much gynæcology is left for the gynæcologist? Therefore, I think the time is rapidly coming when gynæcology must do either one of two things: it must remain a speciality, and therefore more or less associated with obstetrics, or it must become an integral part of surgery. This is a question which seems

to be a very pressing one, and requires some careful consideration.

Again, gentlemen, may I venture to draw your attention to the fact that there must be a certain amount of gynæcology which must remain medical and not surgical. To say nothing can be done for a woman except by a surgeon's knife is preposterous; there is a medical gynæcology as well as a surgical. The trend of the present day is to ignore this to a great extent. How many diseases of women can be treated and benefited by climatic influences, by dieting, by medicines of various kinds? The man who practises obstetrics may have, and ought to possess, a general knowledge of gynæcology, but he need not on that account be an operative gynæcologist. He may see scores of sick women and cure many without any operative interference whatever.

Personally, my own position is this: I practise obstetrics and gynæcology pure and simple, but when a case occurs in which the diagnosis is uncertain, and which may involve the removal of the kidney or appendix, I would, I think, associate myself with an ordinary surgeon, just as the surgeon often associates me with cases where the case is purely gynæcological.

To state examples. Not many weeks ago I removed a large ovarian tumour from a patient, and four weeks after she developed a femoral hernia. I had completed my part of the work, and therefore I handed this femoral hernia over to a colleague.

Some time ago a surgeon had a difficulty about an appendicitis where it might involve the ovary, and he associated me with him in his operation.

Although I confess to have trespassed on the surgeons now and again, at the same time my own position is that I practise obstetrics and gynæcology pure and simple. I am willing to undertake anything in those two branches that may present itself to me.

My friend, Dr. Macnaughton-Jones—and there is no

one to whom this Society owes more—regards the matter from another standpoint, which I can quite understand. He says, in his excellent book, “*Practical Points in Gynæcology*” (3rd Edition, p. 2): “Gynæcology as now practised covers in its operations a much larger field than would be included by the treatment of the pelvic organs alone. This widening of its sphere resulted as a natural consequence of the many abdominal complications met with in connection with pelvic diseases. Operations for the latter revealed errors in diagnosis which compelled the gynæcologist to deal with unforeseen conditions and complications that practically involved the entire surgery of the abdomen. Tumours of the spleen, morbid states, growths and displacements of the kidney, affections of the intestines complicating uterine tumours and adnexal disease, or unavoidable accidents to the bowel arising in the course of an operation, all necessitated immediate action on the part of the surgeon when the abdominal cavity was opened. Thus the surgery of the spleen, kidney and bowel, as well as of the generative organs, the rectum, the ureter and bladder, has of necessity to be included within the range of modern gynæcology.”

If this statement is an accurate description of modern gynæcology, either actual or ideal, then we must reconsider our position very carefully. I must say at once, looking back over experiences—considerably over a thousand abdominal sections—I have not met with the complications that Dr. Macnaughton-Jones refers to, but I can quite understand, of course, that such can occur, and I therefore understand his position entirely.

If we adopt this position, it seems to me that we should range ourselves as a department of surgery pure and simple, and call ourselves, as Dr. Macnaughton-Jones suggests, abdominal surgeons; for if the gynæcologist is to operate on the spleen and kidney, &c., in women, then why not upon the same condition in the male abdomen? If we have become abdominal surgeons, alike for

sexes, we can scarcely claim the style and title of gynæcologists. If we countenance this aggression in our colleagues' domains, we shall be powerless to resist the incursion of the general surgeon into the female pelvis.

I am not venturing for one moment to criticise the position of any of my colleagues, but I wish to point out that I think our position in Edinburgh is a more reasonable one, because there each of us professes obstetrics and the diseases of women, nothing more and nothing less. Every one of my colleagues, with, I think, a single exception, practises midwifery as well as gynæcology, and to that, I think, no exception can be taken.

Mark me, gentlemen, we claim to be a gynæcological society, and, being so, I think there is no reason why general surgeons should not belong to our Society, but, at the same time, what I want to know, and what I think there should be a pronouncement of our Society upon, is, What is a specialist in gynæcology?

Gynæcology, of course, covers obstetrics, and I call a specialist in gynæcology one who practises nothing but midwifery and diseases of women; that and that alone. Of course it may be asserted with perfect propriety that the gynæcologist has now been absorbed by what we call the abdominal surgeon; if that is so, then, as a body of men, we have ceased to exist.

There are, therefore, three possibilities. First, obstetrics and gynæcology may be absolutely divorced; secondly, men may practise gynæcology so-called, operating upon and interfering only with the organs of reproduction; or, lastly, gynæcologists may become absorbed in the general surgeons, specialising to a certain extent as abdominal surgeons.

Gentlemen, I venture to bring this question before you this evening that we may ventilate the subject, because it seems to me that the time has arrived when we should take up either one position or another. I do not

My <sup>1</sup> to say which is the best one; I only venture to

bring before you the position which the school to which I belong has uniformly adopted.

I will be glad to hear what you think of it.

Dr. MACNAUGHTON-JONES said it was for him a pleasing duty to propose a vote of thanks to the President for the address which he had just read. The present occasion was not one upon which they could enter into any debate or discussion upon any point about which differences of opinion might exist, but that there was no reason why a general surgeon should not be a first rate gynæcological surgeon, was sufficiently proved by the illustrations the President had given, to which Terrier of Paris, and many others who were among the most distinguished operating gynæcologists, might be added. In thanking the President for his address the Fellows of the Society would, he knew, desire to express their most cordial thanks, also for the manner in which he had presided over their work during the past year. In doing so they could not ignore the difficulties which rendered his position as President particularly onerous, owing to his residing so far from London, and they were therefore the more grateful to him for his frequent presence in the chair. They had moreover to thank him for numerous and very valuable contributions to their proceedings, of which that on "*Deciduoma malignum*," so beautifully illustrated in the Journal of the Society, should perhaps be especially mentioned. Sir Halliday Croom had also conferred an advantage upon the Society by bringing them into closer association with the great historical medical school of Edinburgh, being for the second time President of the College of Surgeons. Of the broad and liberal views cultivated in that School, an admirable example would be found in his recent classical address to the Edinburgh Medical Society. To their congratulations upon the honour by which the King had recognised his worth, they would all add their heartfelt wishes for his long life, future prosperity, and further advancement in the profession which he adorned.

Mr. BOWREMAN JESSETT seconded the resolution of thanks with very great pleasure. The President's address commended itself very much to all the members of their speciality. His own feeling was that things would go on without much change; that the general surgeon, if he got the chance of doing gynæcological operations would do them; and the gynæcologist do such general surgery as came in his way. He had heard that a distinguished surgeon being asked, when found attending a case of pneumonia, where he would draw the line, replied that to a man having eight children, everything was surgery! He was sure that all present would join in thanking the President for the manner in which he had presided over the proceedings of the Society, and in the congratulations and good wishes expressed for them by Dr. Macnaughton-Jones.

Mr. CHARLES RYALL said a scheme for organising and carrying on examinations for the granting of certificates to nurses for gynæcological and monthly nursing had for the last seven or eight months engaged the serious attention of the Council, and it had decided that it would be advisable to hold such examinations. The Council had therefore drawn up a scheme, and had unanimously agreed to the following special Report:—

SPECIAL REPORT OF THE COUNCIL TO THE SOCIETY.

Your Council, after careful consideration of the subject during the past six months, and after the details have been most exhaustively investigated by a Special Committee appointed for that purpose, decided unanimously at a special meeting held on November 27, to recommend the following scheme to the British Gynæcological Society for adoption:—

(1) That the necessary organisation for the holding of Examinations of Nurses and the granting of Certificates by the British Gynæcological Society in Monthly Nursing and in Gynæcological Nursing be commenced at once.

(2) That a Board of Examiners be appointed to carry

out all the details and the necessary organisation of the work ; that they shall each half year make a report to the Council of their proceedings, and in December of each year shall bring before the Council an account of their income and expenditure for the previous twelve months, duly certified by a chartered accountant.

(3) That the Board of Examiners shall consist of seven Fellows of the Society, to be appointed at the annual meetings of the Society ; and, inasmuch as the work of organisation will at first be most difficult, and continuity of management will be most essential for its success, that the first Board be appointed for a term of three years, and its members be then eligible for re-election ; and that any vacancy caused by death or resignation be filled up at the first subsequent meeting of the Council.

(4) That in order to secure their active co-operation in the scheme, the Matrons of the various lying-in hospitals and of the hospitals for women throughout the United Kingdom be invited by the Council to become Examiners ; those who accept that position being chosen, in turn, to attend the Examinations held by the Society, and to examine the candidates in practical nursing details.

(5) That in accordance with custom and precedent, the next twelve months shall be deemed a " year of grace," during which all women who have had both general and special hospital training in the past shall be eligible for Examination.

(6) That after December 31, 1903, no woman shall be eligible for the Society's Examination unless she has had three years' training in a recognised general hospital, and at least three months' training in a recognised institution for lying-in or for gynæcological patients.

(7) That a fee of one guinea shall be paid by each candidate for each Examination, of which 7s. shall be returnable to her if she fail to pass. That half of the total fees shall be paid to, and divided amongst, the board of Examiners ; that, out of the other half, all the expenses of the exami-

nations shall be paid. In accordance with custom, the surplus each year shall be invested in the names of the Trustees, and only the interest thereof shall be applicable for the general purposes of the Society.

(8) That the following Fellows of the Society be requested to form the first Board of Examiners: Sir Halliday Croom (Edinburgh), Dr. Bedford Fenwick (London), Dr. Macnaughton-Jones (London), Dr. Mansell Moullin (London), Dr. Newnham (Bristol).

(9) That, at first, the Examinations be held once in each quarter.

(10) That a letter explanatory of the scheme be addressed to the medical and nursing Press.

W. TRAVERS,  
*Chairman of Council.*

*November 27, 1902.*

He moved that the following addition to the Bye-Laws, Section 1, Clause 5, should be made: "A Board of Examiners of seven or more Fellows of the Society, which shall be and hereby is empowered to organise and carry on examinations, and to grant certificates in gynæcological nursing and monthly nursing under such conditions as the Council shall from time to time determine."

Dr. J. J. MACAN asked whether the Council were perfectly assured of their legal position in the matter. Was it entitled to grant such certificates without the risk of infringing its Articles of Association?

The PRESIDENT replied that the matter had been inquired into carefully and there was no such risk.

Dr. BEDFORD FENWICK formally seconded the proposition, and stated that the important question which Dr. Macan had raised had been carefully considered by the Council, and it was felt to be so crucial that it was referred to Mr. Evans Austin, the well-known Counsel, who supplied a very lengthy and exhaustive report upon it, pointing out that the British Gynæcological Society was founded for the promotion of gynæcological science



in the widest terms, and that it had a perfect right to do anything it liked in that direction. He stated the Council was legally entitled to carry out anything in the way of obtaining such promotion of gynæcological science, and of this the granting of such certificates to nurses might be deemed to be part. But in order that there should be no difficulty hereafter, Counsel recommended that an addition to the Bye-Laws should be made, showing that the whole body of Fellows had been consulted upon the matter and had definitely decided upon the new scheme being undertaken on behalf of the British Gynæcological Society. This had been carried out by the formal notice of the new Bye-Law on the special circular convening this meeting, which, in accordance with the Articles of Association, had been sent to every Fellow of the Society.

The PRESIDENT, as there was no amendment, put the motion and it was carried unanimously.

Mr. RYALL proposed the following names as those to be appointed on the Board of Examiners: Sir John Halliday Croom (Edinburgh), Dr. Bedford Fenwick (London), Dr. H. Macnaughton-Jones, (London), Dr. Mansell Moullin (London), Dr. Newnham (Bristol), and in moving their adoption, added the proviso that the Council should be empowered to elect two other Fellows to complete the number provided for by the Bye-Law just agreed to.

Dr. MACAN seconded the resolution, which was carried unanimously.

*The following letter, which has already appeared in the weekly Medical Journals, is in direct connection with the proceedings.*

## THE TRAINING OF GYNÆCOLOGICAL AND MONTHLY NURSES.

*To the Editor of the* BRITISH GYNÆCOLOGICAL JOURNAL.

SIR,—We are directed by the Council of the British Gynæcological Society to request the favour of your insertion of the following :—

It is generally conceded that the present condition of the nursing world is in many respects unsatisfactory. There is, apparently, neither any accepted standard nor system of education, nor any reliable method of distinguishing well-trained from untrained Nurses. Women are now able to term themselves "Nurses," and thus may obtain most responsible work in that capacity, when their education and training have been quite insufficient to qualify them to undertake it. There is no means by which trained Nurses can be controlled, or of freeing their ranks from those who prove themselves dangerous to the public and discreditable to their calling.

The special attention of the Gynæcological Society has been lately drawn to the nursing question. Its Fellows employ Nurses chiefly for maternity or gynæcological cases ; and constant complaints are made of the unsatisfactory character of the present education of such Nurses. A most careful investigation of the whole subject on behalf of our Society has proved, *inter alia*, that a great number of Nurses pass through the larger General Hospitals, and in still greater proportion through the smaller, without having had any training in the nursing of gynæcological patients ; while that of Monthly Nurses varies from six weeks to three months in duration, and is quite inadequate for the responsible duties they are called upon to discharge.

For these reasons the Gynæcological Society has

resolved to move in the direction of establishing such examinational tests as will have the effect of bringing about those improvements which are obviously necessary in the education and supervision of Gynæcological and Monthly Nurses. The Society is strengthened in this determination by the excellent results achieved by the Obstetrical Society of London in the elevation of the education of Midwives, and by the Medico-Psychological Association in the improvement of the training and work of Asylum Nurses and Attendants, in consequence of the systems of examinations and certificates instituted and carried on by those two Societies respectively.

The British Gynæcological Society has, therefore, decided at once to institute examinations, and to grant Certificates, in Monthly and Gynæcological Nursing. The three cardinal principles which will be enforced are :—

(1) That every Nurse certificated by the Society must work only and entirely under the directions of qualified medical practitioners.

(2) That no woman will be eligible for the Society's examination unless she has had sufficient training both in general and special nursing.

(3) That the Society's certificate will be withdrawn from any Nurse who, at any future time, proves to be unworthy of professional trust.

Medical practitioners employing such certificated Nurses will thus not only have a guarantee that they are of good character and competent to perform the duties required of them, but also that they are under professional control, and subject to rules of professional ethics which, it would seem, Nurses generally are at present free to disregard.

A representative Board of Examiners has been appointed, and the Examinations of the Society will be held in future once in every quarter.

We are, Sir,

Your obedient Servants,

HEYWOOD SMITH, *President.*

J. H. SWANTON  
S. JERVOIS AARONS } *Hon Secs.*

20, *Hanover Square, W.*

*January 31, 1903.*

*NEW FELLOWS.*

The following gentlemen have been elected to the Fellowship of the British Gynæcological Society :—

L. M. Bossi, M.D., Professor of Gynæcology in the University of Genoa.

James William Cook, M.B., C.M.Aberd., 26, Manchester Road, Bury, Lancashire.

Robert S. A. Drought, M.B., B.Ch., B.A.O., R.U.I., 20, Union Road, Rotherhithe, S.E.

William Duncan, M.D.Brux., M.R.C.P.Lond., F.R.C.S. Eng., 6, Harley Street, London, W.

Charles J. Evers, M.D.Durh., M.R.C.S., South Road, Faversham, Kent.

Arthur Edward Francis, L.R.C.P.Lond., M.R.C.S., 82, Cromwell Avenue, Highgate, N.

James Elliot Jameson, M.B., B.Ch., B.A.O., T.C.D., 16, Church Road, Richmond, Surrey.

Professor Gustave Klein, M.D.Munich.

Thomas Edward Lloyd, M.D.Brux., M.R.C.S., L.R.C.P. Lond., Woodstock House, Abergavenny, Monmouthshire.

Charles Edward Paterson, M.D., C.M.Edin., Stirling Lodge, Farnborough, Hants.

Smallwood Savage, M.A., M.B., B.Ch.Oxon., F.R.C.S. Eng., 133, Edmund Street, Birmingham.

James Frederick Walker, L.R.C.P.I., L.M., L.R.C.S. — I., Elm Lodge, Swallowfield, Reading.

*BRITISH GYNÆCOLOGICAL SOCIETY.*

## THE ANNUAL DINNER.

THE Annual Dinner of the British Gynæcological Society was held on January 29, at the Café Monico, Piccadilly Circus, London. The President of the Society, Sir John Halliday Croom, President of the Royal College of Surgeons of Edinburgh, was in the Chair. Covers were laid for a large number of guests and the proceedings were conducted with great enthusiasm.

Among those present were : Mr. Howard Marsh, President of the Clinical Society ; Dr. S. Buckley, President of the North of England Obstetrical and Gynæcological Society ; Mr. W. Parsons, Master of the Society of Apothecaries ; Dr. S. Jervois Aarons ; Dr. R. Turle Bakewell ; Dr. Edward Bellis ; Dr. C. H. Bennett ; Dr. M. G. Biggs ; Dr. G. F. Blacker ; Dr. W. H. Bourke ; Dr. J. H. Brown ; Mr. Albert Carless ; Dr. Roe Carter ; Dr. James Chambers ; Dr. R. Colenso ; Dr. T. Hobbes Crampton ; Dr. L. Elliott Creasy ; Dr. J. H. Dauber ; Dr. F. C. Dodsworth ; Dr. Henry Dutch ; Dr. T. W. Eden ; Dr. Bedford Fenwick ; Dr. A. W. Galloway ; Dr. Clement Godson ; Dr. A. M. Gossage ; Dr. F. J. Harman ; Dr. George Henderson ; Dr. Robert Hutchison ; Dr. G. O. Hughes ; Dr. H. V. Vaughan Jackson ; Dr. James Jardine ; Mr. F. Bowreman Jessett ; Dr. J. J. Macan ; Dr. J. A. Mansell Moullin ; Dr. H. Macnaughton-Jones ; Dr. H. M. Macnaughton-Jones ; Dr. W. Moyle O'Connor ; Dr. C. H. F. Routh ; Mr. Charles Ryall ; Dr. F. F. Schacht ; Dr. F. J. Simson ; Dr. W. Slimon ; Dr. Heywood Smith ; Mr. Noble Smith ; Dr. J. Smyth ; Dr. Herbert Snow ; Dr. Purves Stuart ; Mr. Startin ;

Dr. Septimus Sunderland ; Dr. J. Hutchinson Swanton ; Dr. T. C. Temple ; Dr. W. H. Thornhill ; Dr. W. Travers, &c., &c., and many ladies.

The PRESIDENT, in a short speech, proposed the toast of "The King," and that having been duly honoured, that of "The Queen and other Members of the Royal Family." He said that Her Majesty enjoyed the love, the admiration, and the regard of every British subject, and the various members of the Royal Family were constantly giving proofs of their high sense of the duty they owed to the realm.

Dr. GODSON, in proposing the toast of "The Visitors," said that the position of the toast on the list showed its importance. In his experience he had generally found it at the bottom of the list, but they were happy in being honoured by the presence of the ladies at their dinner, a privilege perhaps due to the Fellows of the British Gynæcological Society being pre-eminently ladies' men.

Dr. T. W. EDEN, in responding to the toast, said that it was his privilege to be present as the guest of his late teacher, the President of the Society, Sir John Halliday Croom, whose acquaintance he had made first of all in the lecture theatre, and had with pleasure renewed daily for three months. He well remembered how Sir John Halliday Croom continually delighted his audience with aphorisms that lived in the memory of all his hearers, and rendered the driest subjects full of interest.

Dr. S. BUCKLEY, the President of the North of England Obstetrical and Gynæcological Society, then proposed the toast of "The British Gynæcological Society." He said that in the list of the officers of the Society the first name he saw was that of their Honorary President, the time-honoured name of Robert Barnes, and in his opinion no one, living or dead, had done more to advance the scientific position of obstetrics and gynæcology than had Robert Barnes. The names of the Presidents of the Society, from that of their first, Mr. Alfred Meadows, to that of Sir Halliday Croom, who was that night in the Chair, suggested an

active and intimate connection with the evolution and enormous development in gynæcology in recent years, and while the list of Fellows included some of the most distinguished and famous men in their speciality, the geographical distribution of these gentlemen showed that the Society was known and appreciated throughout the gynæcological world. The proceedings of the Society were read with interest, and its Journal lay on the table of every Medical Association of any repute in the kingdom. The attraction to attend their meetings was not merely to impart and acquire scientific knowledge and information, but also the promotion of good fellowship. He did not know what the personal relations of gynæcologists in London was before the establishment of their Society. In Manchester there were hardly three gynæcologists on speaking terms before the formation of the North of England Obstetrical and Gynæcological Society, whose meetings were held in that town and at Leeds, Sheffield and Liverpool. Now every one knew every one else, and he ascribed that to the fact that the members met each other at the social meetings of the Society. He gathered from the assembly he met there that night that much the same routine was pursued in the British Gynæcological Society, and he thought it could only be helpful and useful to everyone concerned.

Sir JOHN HALLIDAY CROOM, in responding to the toast, said that it was a somewhat remarkable thing for a Scotchman to preside at a London dinner. Sir Walter Scott in one of his tales had told them of a Scotch doctor who went across the border to practise in Northumberland, and gave everyone two drugs, and two only, laudanum and calomel; and when remonstrated with for so doing, he justified himself by saying that the course he pursued did something to pay off Flodden. In presiding at their dinner he was perhaps himself doing something of the same sort. He had, however, accepted the office of President believing that they had offered that honourable position to him in

order to pay a compliment to the ancient school to which he belonged. In Edinburgh they had much respect for the British Gynæcological Society, and he wished to mention that every member of the department to which he belonged, with only one exception, was one of its Fellows. He knew it was a disadvantage for any Society to have a non-resident President, but perhaps distance in his case lent enchantment to the view. After referring to the pleasure they all had in knowing that he was to be succeeded by Dr. Heywood Smith, Sir John Halliday Croom concluded by assuring the company that he would be charmed to see them in Edinburgh, and show them the many curious and interesting specimens preserved there.

Dr. MACNAUGHTON-JONES, in proposing the toast of the "Universities and Medical Corporations," said that speaking as a University graduate he had been reincarnated, having passed through one existence in one University, as a teacher, and another, in a second, as an examiner. The destruction of the Queen's University of Ireland, after its thirty years of existence, during which time it had turned out as many distinguished servants of the State as any university in the kingdom, was a blow to the true principle of education, University or other—the development of the potentiality of the student untrammelled by any sectarian or political influence. The Royal University of Ireland raised on its ashes could not supply its place. The only true university was a teaching university. Such education involved the formation of character, whereas an examining board was but a test of the standard of knowledge. The traditions of a university—a priceless inheritance—lay in the names linked with its history, as, for instance, those of Simpson with Edinburgh, Hunter with Glasgow, Harvey with Cambridge, Lister with London, Graves and Stokes with Dublin. The traditions of a university and its associations were greater than those of a corporation, though each had its own roll of illustrious names—names of men who had both "saved and served the State"; men who



were not "lost in the crowd, striving blindly, achieving nothing," but who had left to their universities and corporations imperishable names and imperishable fame. Dr. Macnaughton-Jones concluded by paying a tribute to the President, Sir Halliday Croom, who had not only brought the lustre of his personal prestige to the Chair, but, in his capacity as a former President of the College of Physicians, and now President of the College of Surgeons of Edinburgh, had associated the Society with that grand old historic school.

Mr. W. PARSON, Master of the Society of Apothecaries of London, in responding to the toast, said that in regard to the medical corporations and in learning something about them he was only a beginner. They heard a great deal about education at the present time, but he was certain that if anyone wanted to complete his education he could not do better than join a corporation of some kind or other.

Dr. F. F. SCHACHT, who also responded to the toast, said that the universities of this country had been behind-hand in interesting themselves in medical education. It was only comparatively of recent years that these ancient institutions had turned their attention to the development of their medical aspects. The fact that they had their toast on the list that night was a recognition of the importance of the subject.

Dr. HEYWOOD SMITH proposed the toast of the "Sister Societies." He advocated the formation of a Royal Academy of Medicine in which all societies and institutions should be amalgamated, so that by intercommunication the science and art of medicine could be advanced and forwarded in a manner that it had never been before.

Mr. HOWARD MARSH, the President of the Clinical Society of London, in responding to the toast, pointed out how the societies afforded professional men a refreshing means of recreation after a heavy day's work. There was no doubt that in that manner the societies supplied a great want. He contended that men of science need not fear the

*ennui* of life, for their occupations and pursuits rendered them secure against that condition. A scientific man had always something of interest at hand, and in support of his remarks he gave some interesting details of the life and work of John Hunter.

Some excellent music assisted to entertain the guests; a violin solo by Miss Ethel Sinclair, and some excellent songs and a duet by Dr. W. H. Bourke and Mr. Bovett won much deserved applause.

## REVIEWS.

CLINICAL ILLUSTRATIONS OF DISEASES OF THE FALLOPIAN TUBES AND OF EARLY TUBAL GESTATION. A Series of Drawings with Descriptive Text and Histories of the Cases. By CHARLES J. CULLINGWORTH, M.D., Hon. D.C.L.Durh., F.R.C.P., Obstetric Physician to St. Thomas's Hospital, &c. Third Edition, Revised. 8vo, pp. xii. and 77. London: Henry J. Glaiser, 1902. Price 10s. net.

THE BRADSHAW LECTURE ON INTRAPERITONEAL HÆMORRHAGE INCIDENT TO ECTOPIC GESTATION. By the same Author. *British Medical Journal*, November 8, 1902.

The third edition of Dr. Cullingworth's well-known and valuable work on the Fallopian tubes is now before us. The book is one that holds a unique position in medical literature. It is a record of personal work and observation, and at the same time an atlas of special disease in which the efforts of the writer, the artist and the publisher have secured a quite unusual height of excellence.

The book both gains and suffers by being a record of personal work only. Dr. Cullingworth is so careful and so honest an observer that it is an undoubted gain to know that every case and specimen described or illustrated has the "hall-mark" or *imprimatur* of his personal investigation and knowledge.

On the other hand, notwithstanding the rearrangement of matter, which is the chief feature of the present edition, this method has its imperfections and limitations. The

book—as a book or treatise—is necessarily scrappy and disjointed, and while illustration and descriptive text may both, in their place, be absolutely perfect, these do not altogether satisfy the imagination, but rather fire it with the vision of what a connected and exhaustive treatise might become if, from the experience of many, the treatment of the subject could be rounded into perfect form, with no important pathological condition omitted and no illustration wanting.

Probably every surgeon who has been working for some years in the same field as Dr. Cullingworth would be glad to bring certain specimens and cases to supplement those so ably represented by him, if by so doing the vacant places could be adequately filled and the pathological conditions as delightfully pictured as are most of the specimens of the author.

As I write I think of two specimens of old tubercular disease of the Fallopian tubes, the result of infantile tuberculosis, in which we find sectional complete obliteration of the tubes; another, showing symmetrical myoma of the tube; another, showing gumma of the tube; several specimens of tubal pregnancy with rupture of the tube; one or two unruptured specimens, but showing dilated veins or sinuses of the placental site at the very point of rupture; and several hæmatoceles with more or less perfect adventitious sacs.

An interesting specimen of this latter condition is figured in Plate XI. (fig. 1.), although its true nature does not appear to have been fully recognised until a recent re-examination by Mr. Sampson Handley. It is a matter of some pardonable satisfaction to the writer that the exact condition found in the specimen had been already suggested by him in a review of Dr. Roberts' "Gynæcological Pathology" published in this Journal a year ago.

Other specimens of diseased appendages one would also like to see figured well and described are those

sometimes found in cases of streptococcic infection and in actinomycosis.

But the field is, of course, a large one and might perhaps be indefinitely extended. For the present we may congratulate ourselves that this book of Dr. Cullingworth's remains a model of the method and spirit in which such an atlas of disease should be essayed; itself forming the beginning or nucleus of what may, some day, grow into a larger book, containing the ripe fruit of the perfected experience of gynæcology.

The plate which many will still be disposed to criticise is the diagrammatic illustration intended to show the normal position of the ovaries and tubes. The main defect in it appears to be the want of some evidence or hint of any "inclination" in the diagram to suggest the forward position of the fundus. If this idea could be conveyed to the observer (as it is to some extent in the lower illustration in the same page) the chief objection felt to it would practically disappear.

"The Bradshaw Lecture" by the same author is a fine *résumé* of all that is known about intraperitoneal bleeding due to ectopic gestation, much of this knowledge being due to the work of English gynæcology, in which Dr. Cullingworth has himself taken a most important part.

In it Dr. Cullingworth very rightly insists on the necessity for diagnostic training and skill, tracing the striving after perfection in diagnosis to the traditional association of gynæcology with medicine.

But is this fair to surgery? Is not the striving after perfection in diagnosis quite as characteristic of the best surgeon as of the best physician? Is it not rather the legitimate use of a wise specialism which has brought us nearer perfection in gynæcology—a specialism in which medicine and surgery, so long divorced, once more are united in the practice of one individual, who, however, limits the field of his labour and applies every power which

he possesses to the study and treatment of one group of diseases ?

In this very subject, if we take the writings of only a few years ago (such as the article in Allbutt and Playfair's "System of Gynæcology"), we can contrast the comparatively hopeless way in which the physician was then seeking after truth, with that of the modern gynæcologist who has found it, and the knowledge we have gained is almost entirely due to the fact that we, who are surgeons as well as physicians, have been able to verify our diagnoses, to know when we have been correct and to know when we have been mistaken.

Dr. Cullingworth's descriptions are good and his teaching is sound, because he speaks of what he knows and describes what he has seen, and he and the present writer are so fully in agreement in all their writings on this subject that there is hardly any place for criticism between us. What one would like to express is rather a simple appreciation of all the truth that is contained in this lecture, of the solid work on which this rests and of the kindness which does not disdain to recognise the labour of a provincial colleague. The only difference between us appears to lie in the question of prognosis. Dr. Cullingworth says: "the tendency (in cases of non-fatal hæmorrhage) is to the recovery of the patient." Some patients undoubtedly recover without operation, but this generalisation appears to be too favourable. In many cases the hæmorrhage is recurrent and the danger of sepsis is by no means imaginary. It is therefore of importance to note that three cases in which Dr. Cullingworth had advised non-interference required his services later. The records of some observers who describe the greater bulk of cases of intraperitoneal hæmatocele as undergoing natural absorption and *cur* rest, it is to be feared, on mistaken diagnosis.

J. W. T.

CANCER OF THE UTERUS. A Clinical Monograph on its Diagnosis and Treatment, with the after results in seventy-three cases treated by Radical Operation. By ARTHUR H. LEWERS, M.D.Lond., F.R.C.P.Lond., Obstetric Physician to the London Hospital, &c. With 51 original illustrations and 3 coloured plates. Demy 8vo. Pp. xiv. and 328. London: H. K. Lewis, 1902. Price 10s. 6d. net.

Dr. Lewers must be congratulated upon his good fortune in encountering so many cases of uterine cancer in an early, and therefore curable, stage; upon the large percentage of permanent recoveries he is able to show; upon the sumptuous manner in which the book, with its clear print and excellent photogravures, has been got up; lastly, upon the careful mode in which the history of each patient has been traced out and recorded.

The range is restricted, and the work makes no pretence to the title of a complete treatise on its subject. We are told at the outset that "the subject is treated almost entirely from the clinical point of view." All controversial questions of causation and of cancer-etiology are thus judiciously barred. And even pathology has no *locus standi*, so far as discussion by the acrimonious critic is concerned. Everything pathological rests (p. 92) upon "an independent report by the Clinical Research Association,"—the latter being in every recorded instance synonymous with Mr. J. H. Targett. But even the clinical range is by no means wide. The volume essentially consists of three items—diagnostic symptoms, operative details, case-notes.

Dr. Lewers very judiciously deprecates any supposed influence of heredity in predisposing to cervical cancer, and deplores the rarity with which this prevalent form of uterine malignant disease is recognised in time for a radical operation. A pregnant sentence (p. 12) hints at the most significant factor involving this fatal delay. "I have seen many patients with advanced cancer of the uterus, who gave a history of having been under medical care for a long period,

and of having been treated merely by medicine and douches, without ever having been examined at all." Of the far less common carcinoma of the uterine body he also well says (p. 247) : " There is little difficulty in diagnosing it, provided the possibility of its presence is suspected."

Now in the chapter dealing with cancer of the cervix, its symptoms and diagnosis, there are several points upon which, while in the main accepting his pronouncements, I am forced to join issue with Dr. Lewers. The most important is that which refers to pain. He states (p. 15) : " Pain is a symptom which, contrary to the popular impression, only occurs late in cases of cancer of the cervix. It almost invariably corresponds to a stage of the disease when the growth has begun to spread beyond the anatomical limits of the uterus—that is to say, to a stage of the disease when it is impossible to remove the growth by any operation."

I must confess that my opportunities of an early examination in this condition have been scantier than I could wish, and probably far inferior to those enjoyed by Dr. Lewers. But I do not remember ever to have seen a genuine case of cervical cancer in which gnawing lumbar pain was not a very pronounced symptom from the very first; and I feel considerable distrust of any statistics or surgical practice in which that subjective sign has not occupied a prominent place in the diagnostic banner—so-called " verification by the microscope " notwithstanding.

There are assuredly a great many ulcerative conditions about the uterine cervix, some syphilitic, some tubercular (probably much more common than is now recognised), others not yet clearly defined or described, which, in the absence of due regard to their painlessness, have been erroneously pronounced malignant. We may find foetid discharge, occasional hæmorrhage on coition, on digital examination an open sore at the os; or, on the other hand, a somewhat hypertrophied cervix, soft, bulbous, studded with numerous small papillomatous masses—in short, all



the conditions we ordinarily associate with cervical cancer except two : *pain is absent or slight, and there is no marginal induration felt by the educated finger.*

With mammary carcinoma, so long painless or nearly so, no parallel exists. The painless stage of this too common malady is at an end directly there is any breach of the skin-surface. The smallest ulcer is *ab initio* agonising. Cervical cancer is ulcerative from the very first. We know moreover that merely irritative lesions of the part, "granular erosions," endocervicitis, are always the source of painful sensations referred to the ovaries.

It is therefore, I suggest, of high practical importance to regard any case of uterine hæmorrhage, with offensive or merely profuse discharge, in which cancer is suspected, but in which there is little or no pain, as only *sub judice*; and never to invoke hysterectomy till the doubt has been completely eliminated.

Dr. Lewers again seems to consider resort to the speculum essential to diagnosis, though he prefers Sims' and dislikes Ferguson's. There can be no valid objection to duck-bill specula used carefully under anæsthesia. But surely an anæsthetic is rarely necessary under such conditions, and to pass any form of speculum otherwise is a useless, sometimes even a dangerous, barbarity. The *tactus eruditus* should suffice. The indurated margin of a cancerous sore can hardly be mistaken for any other form of disease; and it is seldom requisite to seek ocular inspection at the cost of acute suffering and discomfort.

Finally the operation of vaginal hysterectomy being now so commonly resorted to, and the early recognition of cervical carcinoma so vitally important, it cannot be too often reiterated that a microscopical report should always be received with caution, and should only be relied on to confirm a diagnosis already based on clinical grounds. So eminently practical a gynæcologist as Dr. Lewers would have done well to emphasise this maxim, which would express, I think, the general experience of his *confrères*.

The term "cauliflower excrescence" is somewhat inaptly used to denote the common "fungation" or "fungous mass" of cervical cancer, solid, though pliable. It originally signified an altogether different lesion—"villous cancer," soft, pulpy, dendritic vegetations, protruding from the margins of the os uteri, and bleeding profusely at the slightest touch. It is unwise to confound these two forms of growth, clinically very distinct, and demanding rather diverse methods of treatment.

Passing to the operative treatment of cervical cancer, it is interesting to find that although Dr. Lewers now prefers complete vaginal hysterectomy, still "some of my best cases, as regards freedom from recurrence after operation for cancer of the cervix, occur among the series of cases in which I performed the supra-vaginal operation" (p. 53). "The growth does not in the large majority of cases tend to spread to the body of the uterus till a late stage of the disease. On the other hand, it does tend to spread early to the connective tissue of the cervix, and to the vagina." Yet he has almost abandoned the supra-vaginal operation for two sound reasons: (a) it was often followed by contraction of the orifice, involving painful dysmenorrhœa, sometimes even hæmatometra or hæmato-salpinx; (b) the malignant infiltration, though usually first extending to the vaginal *submucosa*, occasionally proceeds first upwards towards the uterine body.

The views quoted are certainly correct, and the low mortality consequent on complete hysterectomy, together with the complete extirpation of cervical endometrium which this guarantees, generally warrant the adoption of the more radical measure. Another reason may be pleaded in addition to those advanced by Dr. Lewers. When "recurrence" ensues the patient is free from vaginal discharges. Of the suffering which these cause, of the inexpressibly horrible foetor which they involve under conditions of neglect, no one can form an idea who has not attended the wretched sufferers who die at their own

squalid homes in poverty-stricken neighbourhoods. The details of "vaginal hysterectomy for cancer of the cervix," with the subsequent case-reports, show that Dr. Lewers has carefully and painfully elaborated his *technique*. I hardly think, however, that he has yet succeeded in attaining the highest perfection, or that other operators will unhesitatingly follow all his directions.

Thus after incising the anterior vaginal wall, he considers "it is an important thing to thoroughly sear the cut edge with Paquelin's cautery." "I believe the chief value of the use of the cautery is that it leads to an extensive sloughing subsequently, and in that way removes a further ring of tissue which may possibly be really infiltrated by malignant growth." "It might be thought that consequent on the sloughing referred to a vesico-vaginal fistula would often occur, but this has not happened in any of my cases."

It is most fortunate that Paquelin's cautery never by any chance does "lead to an extensive sloughing," or there can be little doubt that the catastrophe indicated would often, if not always, have ensued. The eschar which follows any form of the actual cautery is always local and superficial—a circumstance which commonly militates against the use of Paquelin's instrument, except for merely palliative purposes, in cancer-surgery. With prolonged applications, one can rarely secure a slough deep enough to obliterate the minute and superficial cell-clusters of even lupus.

The pouch of Douglas is opened when the bladder has been separated as high as the level of the internal os uteri, and only then is the vesico-uterine peritoneal pouch incised. Dr. Lewers seems rather conscious that a too literal adherence to this method may involve risk to the ureters; as (p. 66) he indicates that the danger may be avoided by "taking care not to make the lateral incisions too far from the cervix," and by a subsequent remark that "as the bladder is separated from the anterior surface of the cervix, it can be retracted upwards, carrying the ureters, to a great extent, with it." But he fails to emphasise what is

surely the cardinal point as regards the ureters, viz., that by stripping off the bladder, *then* opening the vesico-uterine pouch, and delivering the uterine body before dealing with Douglas's pouch, these ducts are at once got out of the way, and all danger of wounding them abrogated.

Again, he leaves the ligatures on the broad ligaments long, and drawn downwards ; while finally, " a narrow strip of sterilised iodoform gauze is passed up between the two sets of ligatures, left and right, so that the gauze projects to the extent of an inch or so into the peritoneal cavity." Both these measures appear to the present writer objectionable. The operator desires prompt union of the peritoneal flaps, which normally follows within a very few hours. He best promotes that end by placing them, with the aid of forceps, in apposition, and packing iodoform gauze around before withdrawing these forceps. Sutures seem quite unnecessary. But by interposing strips of gauze in the manner stated, he would rather tend to defeat his proper object ; though kind Nature will generally pull him through in spite of all.

Ligatures cut long and left in the vagina are liable to two objections. There is risk of hæmorrhage when they separate, as with the old stumps in pre-catgut days ; and they constitute a path for intrusive microbes from without. There is rarely, or never, need for drainage after this operation, provided the parts are left aseptic ; so that the employment of the long ligature cannot be advocated on that ground.

Dr. Lewers has now most wisely abandoned the practice of leaving Wells' forceps upon the vessels for a day or two. That stage is always highly dangerous, and should never be resorted to except under absolute necessity. It is rather difficult to understand how it can have so long been a routine measure in his *technique*, as the recorded cases seem to indicate.

The description of cancer attacking the uterine body, and the details of operations for its removal, leave nothing to be desired. The disease is practically isolated within a capsule (of organic muscle), and, like encapsuled malignant

lesions in general, very tardily infects the lymph-glands. Therefore the fantastic measure which some continental operators have advocated, aiming at the wide extirpation of those structures, are here very properly tabooed.

The doubts which have been recently expressed, at the British Gynæcological Society and elsewhere, as to the existence of any real deciduoma malignum as a distinct pathological variety of cancer, or as dependent upon impregnation-phenomena, lend considerable interest to the two cases of "Sarcoma of the Body of the Uterus" at pp. 269, 273. The first presents the typical clinical and *post-mortem* characters of deciduoma malignum, though the microscopical phenomena are set down briefly as those of "mixed round and spindle-celled sarcoma." The second, in addition, displays "syncytium"; "irregular plasmodial masses of nucleated protoplasm without any definite cell-outlines." In the first case there was no question of pregnancy, and in the second, the pre-existence of that condition was "extremely improbable."

Dr. Lewers has brought forward "full particulars of 19 cases, 14 of cancer of the cervix, and 5 of cancer of the body of the uterus, in which periods of from four to more than fifteen years have elapsed since the operation without any return of the disease."

His book has no claim to originality, but it is a narrative of eminently successful practice by an eminently practical man, and, as such, has its full value.

HERBERT SNOW.

**THE PRACTICE OF OBSTETRICS BY AMERICAN AUTHORS.**  
Edited by CHARLES JEWETT, M.D., Professor of Obstetrics and Gynæcology in the Long Island College Hospital, New York. Second Edition, revised and enlarged. Illustrated with 445 engravings, 48 of which are in colours, and 36 coloured plates. London: Henry Kimpton, 1902. Pp. 786. 8vo. Price 25s. net.

This treatise, by nineteen writers all thoroughly versed in the subjects with which they deal, under the editorship of

Dr. Charles Jewett of New York, is an admirable exposition of the views of our American *confrères* on the various branches of obstetric medicine. The first edition of the work appeared two years ago, and the present one has been extensively revised, and contains many alterations, new illustrations, and numerous additions. There are special advantages in a book being written by a number of different teachers, each devoting his best efforts to that department of the subject with which he deals, but as "a concise and comprehensive guide for the practitioner" some readers would prefer to have the views of a single obstetrician of admitted experience.

The volume opens with an account of the anatomy of the parts concerned in parturition, and then comes a series of chapters on the physiology of pregnancy, in regard to the diagnosis of which (pp. 140-141 "Hegar's sign" is fully described; but "Braxton Hicks' sign"—that is, rhythmical contraction and dilatation of the uterus—which Lawson Tait declared was "the only one sign on which absolute reliance can be placed," is not sufficiently dwelt on; and we cannot believe that (as stated on p. 134) "a greatly distended bladder will give the same sensations."

The article on the duration of pregnancy is hardly up to date; no reference is made to the interesting paper by Taussig, of St. Louis,<sup>1</sup> on this subject. The constitution and the age of the mother, the number of previous pregnancies, the sex of the foetus, omission of any vaginal exploration, and above all the influence of rest (as shown by Pinard) are most important factors in the prolongation of pregnancy. "The Problem of the post-mature Infant" has recently been discussed very fully by Dr. J. W. Ballantyne;<sup>2</sup> and in the second edition (1900) of another American work on obstetrics, the author, Dr. B. C. Hirst, teaches "that (p. 506) it is a good rule in practice to allow no woman

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<sup>1</sup> *Amer. Jour. Obstet.*

<sup>2</sup> *Jour. Obstet. Gyn. Brit. Emp.*, December, 1902.

to exceed the normal duration of pregnancy by more than two weeks."

In the chapter on "The Mechanical Elements of Labour," the illustrations, borrowed from Farabœuf and Varnier, are excellent, but the importance of the "lower uterine segment" in the mechanism of labour is not sufficiently recognised. The phenomena of the third stage are not grasped fully, and, as a result, the description of the management of this most important period of labour, in reference to which no signs are mentioned by which the attendant can judge that the placenta has separated, is not the line of practice which is taught in this country; nor can we endorse "episiotomy" (p. 243) even "when extensive laceration at the vaginal outlet is otherwise inevitable." After an ample consideration of the "anomalies" and "diseases of the foetus," and a very full account of "ectopic gestation," the "toxæmia of pregnancy" is fully discussed. The pathology of eclampsia is judiciously admitted to be "more than obscure" (p. 540), but as regards its treatment the contributor says, "it is difficult to understand the position of those authorities (notably of the British School of Midwifery) who advise against inducing labour in the presence of urgent symptoms of the pre-eclamptic state." The obvious reply is that at the largest maternity hospital in the United Kingdom—the Rotunda Hospital, Dublin—better results have been attained by treating the convulsions without accelerating delivery, unless labour has already begun. At the Rotunda the best results have been gained by Veit's method, but the writer says that he has given up morphia "almost entirely, as it apparently prolongs the post-eclamptic stupor and increases the tendency to death during coma by interfering with the eliminative processes;" he prefers chloroform, veratrum viride and chloral in the order named. He recommends rapid manual dilatation of the os, adding wisely, if not oracularly, "but only after the cervical canal is in a condition favourable for its safe performance" (p. 545); and he gives several illustrations of this method. We think

that in cases needing rapid dilatation of the os uteri, Bossi's dilator, from the excellent results obtained in Leopold's clinic,<sup>1</sup> as well as by Dr. W. E. Frost and Professor Simpson,<sup>2</sup> will do away with the manual method.

The editor contributes a good account of "The Hæmorrhages," but the vaginal tamponade will, we think, be very rarely required in placenta prævia, and he hardly realises its special advantage in external accidental hæmorrhage, in which it not merely checks bleeding and affords an opportunity for the patient to rally, but at the same time brings on labour gently, and so minimises shock. In treating post-partum hæmorrhage no mention is made of the plan of drawing down the uterus (a practice we learned in vaginal hysterectomy), nor of Fritsch's method—pressing the vulva inwards with one hand towards the vagina, while the other hand on the abdomen presses the uterus downwards into the pelvis.<sup>3</sup>

One of the very best chapters in the work is that on "Puerperal Infection," by Dr. J. Whitridge Williams. We know no article in the English language on this difficult subject so thorough. The indications (with their limitations) for local treatment are clearly stated. He thinks the treatment of puerperal infection by antistreptococcic serum has been employed "with very unsatisfactory results"—an opinion most experienced men will endorse; and his views as to the removal of the uterus in puerperal infection coincide very much with those brought forward quite recently at the Fourth International Congress of Gynæcologists, held at Rome, September 15 to 21, 1902, in the discussion on "Hysterectomy in the Treatment of Puerperal Infection," that it is only, if at all, justifiable in most exceptional cases, in which the disease is limited to the uterus, after all other obstetrical treatment has failed, and that each case must be considered on its merits.

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<sup>1</sup> *Muench. med. Wochens.*, 1902, No. 42.

<sup>2</sup> *Brit. Med. Jour.*, November 29, 1902, p. 1710.

<sup>3</sup> *Zeitsch. f. Geb. u. Gyn.*, Bd. xlvii., pp. 197-490.



On the whole, however, this "Practice of Obstetrics by American Authors," is an admirable book which we welcome as a most valuable addition to our medical literature. No obstetric teacher, nor medical man interested in midwifery, should be without it.

THE ANATOMICAL RELATIONS OF THE MUSCLES OF THE FEMALE PELVIS WHEN AT REST, AND DURING LABOUR. By Professor HUGO SELLHEIM, Assistant at the Clinic for Women at the University of Freiburg, i. B. Folio, pp. 16, with 9 Plates and 16 Figures in the text. Wiesbaden: J. F. Bergmann; Glasgow: Baumeister, 1902. Price 14s.

This work, though it appeals more especially to obstetricians, can hardly fail to excite the admiration and arouse the interest of wider circles of the profession, as an example of patient, well-planned, and ingenious investigation of an important, and hitherto imperfectly worked-out problem in the mechanism of labour.

The author divides the muscles of the pelvis into those connected with the hip and those forming the floor. The former include the ileo-psoas, the obturator internus and the pyriformis on either side; the pelvic floor he considers as formed of three layers: (1) *Diaphragma pelvis rectale*, formed by the mm. pubo-coccygeus, pubo-rectalis, ileo-coccygeus, and ischio-coccygeus; (2) *Diaphragma pelvis urogenitale*, consisting chiefly of the mm. compressor urethræ and transversus perinei profundus, contained between two layers of fascia; and (3) the muscles which represent the *sphincter cloacæ* of the embryo, viz., the constrictor cunni or m. bulbo-cavernosus, the sphincter ani externus, the ischio-cavernosus, and the inconstant transversus perinei superficialis.

Little is known of the effect of the thigh muscles on the mechanism of labour; the psoas is, however, thought by some to hold back the forehead and thus aid in flexion;

and J. Veit attributes considerable influence to the obturator internus in causing the anterior rotation of the occiput. The muscles of the pelvic floor are supposed to assist in the same rotation. The extension of the head as it passes under the arch of the pubes is said to be effected by the resultant of the expelling force and the resistance of the elastic floor of the pelvis. But all these theories have met with more or less contradiction, and in the present work Sellheim contents himself with trying to determine the exact dislocations that the pelvic muscles undergo during labour.

To ascertain the relation of the muscles to the lumen of the genital canal, he first fixed these muscles by immersing the entire pelvis in a strong solution of formalin, and then exposed them by dissection from above ; he next took a cast of the cavity with glycerine gelatine, and reproduced this in plaster of Paris ; then he hardened the whole pelvis with alcohol and ether, and covered it with celloidin, and made sections of it in three dimensions, as first recommended by Hodge. By comparing the plaster cast just mentioned with one of a normal pelvis from which all the muscles had been removed, and with the sections made in the three dimensions, Sellheim has come to the following conclusions : Neither the muscles of the brim or the pyriformis have, as a rule, any influence on the mechanism of labour ; the obturator internus serves chiefly to close the gap in the pelvic walls caused by the obturator foramen, it may slightly modify the action of the bony parts, but cannot exercise any such important rôle in the mechanism of labour as Veit has supposed. The head passes freely downwards till it meets with the resistance of the pelvic floor, the muscles of which form an inclined plane directed upwards and forwards, and not, as Hildebrandt held, downwards and forwards.

To obtain an accurate representation of the dislocation of the pelvic floor during labour, Sellheim employed the following ingenious proceeding : he filled a normal pelvis

with modelling clay and massed a large quantity of the same round the outlet ; he then forced a plaster cast of a normal foetal head through the canal, making it take the usual movements of flexion, rotation and extension, and afterwards took a plaster cast of the passage left by the head through the clay. This plaster cast he inserted from above into the genital canal of a woman with a normal pelvis and unruptured perinæum, who had died eight hours after the birth of her second child, the genital canal having been previously dilated sufficiently to allow the same cast of the foetal head to pass through. After the whole pelvis had been in a strong solution of formalin for six weeks, a careful dissection was made from below, with the inner cast *in situ*, of the external side of the muscles, of which careful drawings and casts were taken ; they were then covered with plaster to the depth of several centimetres, a sagittal section was made of the whole mass, the halves of the inner cast were removed, and the muscles of the pelvic floor having been dissected from within, they were accurately drawn and modelled. From these casts, coloured and suitably prepared, a wooden model was made, which, has been reproduced for teaching purposes, in *papier maché*, and may be obtained from Messrs. Benninghoven and Sommer, 19 Thurm Strasse, Berlin, N.W. The three pelves made use of were normal and very similar, and Sellheim considers that the models are true to Nature. They confirm the conclusions above stated ; the right obturator is hardly marked, the left is so to some extent, from the occiput having been forced through inclined to that side.

A table of the length, breadth, and thickness, of the muscles of the pelvic floor when at rest and when at their maximum extension, shows that the ileo-coccygeus is the one most affected, being stretched to double its ordinary length ; the bulbo-cavernosus, the pubo-coccygeus and pubo-rectalis come next in order, and the ischio-coccygeus last. The stretching of the muscles is naturally accom-

panied by much thinning, and by the formation of gaps between their fibres and between the different muscles. The rectum is flattened out into a band 3 cm. wide for a distance of from 9 to 10 cm. from the anus.

We heartily congratulate Professor Sellheim upon the valuable contribution he has made to the solution of a difficult part of the mechanism of labour, still too imperfectly understood, and at the same time thank him for placing within the reach of all teachers of midwifery a simple method of demonstrating the modifications which take place in the floor of the pelvis during the expulsion of the foetal head.

POINTS OF PRACTICAL INTEREST IN GYNÆCOLOGY. By H. MACNAUGHTON-JONES, M.D., M.Ch., M.A.O. (Honoris Causa), R.U.I., &c., &c. ; with 24 Plates. Third Edition, Demy 8vo. Pp. xii. and 188. London : Baillière, Tindall and Cox, 1902. Price 4s. 6d. net.

The first edition of this eminently practical work was followed in a few months by a second, both of which were noticed in our pages (vol. xii., p. 88 and p. 253). A third edition was called for within a year, and the adoption of a different paper has permitted considerable additions without materially increasing the thickness of the book. Seven new plates are inserted, including two views of the author's own model operating room, several instances of complicated adnexal disease, an ectopic gestation adherent to the bowel, and an interesting section of a pregnant uterus with a carcinomatous cervix. A considerable portion of the text has been rearranged, and a number of figures are given, some of which, illustrating practical points of technic which the author learnt during a recent visit to the principal Clinics in Germany, are particularly valuable. Useful as were the earlier editions, the present one is even more so, and we shall be surprised if it does not meet with even greater success.

CHIRURGIE DES OVAIRES ET DES TROMPES. Par A. MONPROFIT, Professeur du Clinique Chirurgicale a l'Ecole de Médecine, Chirurgien de l'Hotel Dieu d'Angers. Préface du Professeur TERRIER. Grand octavo, pp. xii and 456, avec 260 figures dans le text. Paris : Institut International de Bibliographie Scientifique, 1903. 15 francs.

This work is one of a series of practical treatises published under the auspices of the *Archives Provinciales de Chirurgie*, of which others, relating to the surgery of the liver, intestines and uterus, have already appeared ; like them, it bears witness to sound principles, technical and literary ability and erudition, which distinguish the professors of the provincial medical schools of France almost as much as those attached to the Faculty in Paris. The author dedicates it to Professor Terrier, whose *intern* he was at Bichat, and who has written a preface which, while appreciative, seems perhaps only to an English reader more patronising in tone than is warranted by the real merit of the book.

The author has long paid special attention to his subject, as in 1888 he submitted, as his inaugural dissertation, an essay upon "The Surgical Treatment of the Inflammations of the Internal Genital Organs of Women." One hardly opens the book before one's attention is arrested by the systematic way in which it is arranged. The first of the three parts into which it is in the first place divided, contains a description of all the older conservative operations that have been performed upon the ovaries and tubes ; the second, and this as might be expected from the recent developments in surgical procedure, is by far the largest of the three, is devoted to modern conservative operations, while the third part gives a detailed exposition of the radical measures ordinarily practised for the relief of adnexal disease, that is to say, ovariectomy and salpingo-oöphorectomy. In each part the abdominal methods are first considered and then the vaginal ; the other methods, paravaginal, perineal, parasacral or rectal, follow where such have been employed, and in the case of the tubes uterine.

With a few exceptions the methods described in the first part are of merely historical interest. Marsupialisation may occasionally be indicated in the case of an ovarian cyst which cannot be extirpated, or in one of ectopic gestation; vaginal puncture is undoubtedly useful as a temporary measure when dystocia is caused by a cyst; vaginal incision still more so, as an operation of necessity in certain cases of salpingitis, hæmato-salpinx or ovarian abscess, or in hæmatocele of limited size and uncertain origin, and also in some cases of ectopic gestation, particularly where the gestation sac is an old one and suppurating.

In the second part of the book Monprofit describes his method of intraabdominal massage, by which alone he thinks slight periovarian varix may sometimes be treated, congestion rectified, or minute cysts or ovarian vesicles be ruptured with benefit. Though he has not seen this method described, he admits it may very well have been practised by others addicted to conservative methods.

More interesting and important is the description of the nine recorded cases (Morris, 2; Frank, 3; Dudley, 1; Delagenière, 2; Glass, 1) in which a sound ovary from another woman, or a portion of an ovary, the rest of which had to be removed, has been successfully grafted beneath the peritoneum or within the tube or uterus. The idea of this operation is due to Chrobak of Vienna, and our readers will remember that on animals it was successfully worked out by McCone, Knauer and others (*ante*, vols. xv., p. 464, xvi., p. 88, xvii., pp. 136-7). As Monprofit points out, the immediate results of these operations were excellent, the number of them is not sufficient to warrant definite conclusions, but they justify further trial in cases of double castration, or insufficient function or arrest of development of the ovaries.

Among other conservative measures described in the second part, we may instance ignipuncture, suture, resection and fixation of the ovary, expression, catheterisation and dilatation of the tubes, salpingotomy, salpingostomy,

salpingorrhaphy, partial salpingectomy, salpingo-pexy and salpingo-ovario-syndesis; names which seem more formidable than the operations, very well described in the text, are to those familiar with them.

Of the third part, referring to radical operations on the ovaries and tubes, we need say no more than that their history, technic, and indications are adequately described for the scope of the book. All the information that a practitioner should be acquainted with is well and concisely given; those who have to perform these operations will necessarily have wider fields of study.

The value of this book is materially increased by full subject and name indices, and as space must be considered in a work of the kind, the references to particular cases, which are freely given under name and date, seems amply sufficient for anyone with access to a good library, and to others even more complete references are of little use.

Throughout the work the decimal system of classification is indicated (Dewey-Baudouin), which has as yet found little favour in Great Britain, but would if universally adopted be, we are sure, convenient not merely for those engaged in literary work, but to all who are in the habit of preserving printed or written records for future reference.

The illustrations are singularly unequal, some, especially those referring to the various methods of suture, excellent; others, more particularly the anatomical drawings, almost worthless. But a very large number are valuable in elucidating the text upon technical points, and still more as showing the instruments referred to. Printing and paper leave nothing to be desired, and if in continental fashion there is no binding, the book is all the easier and lighter to hold in the hand. We seem to have a far off connection with the author, as the Hotel Dieu at Angers, the hospital with which he is connected, is said to have been founded in 1155, by one of our own kings, Henry II.

## PUBLICATIONS RECEIVED.

FROM JOHN BALE, SONS, AND DANIELSSON, LTD., 83-89, GREAT TITCHFIELD STREET, LONDON, W.:

The Surgical Treatment of Ulcer of the Stomach, by C. Mansell Moullin, M.D.Oxon., F.R.C.S., Senior Surgeon and Lecturer on Surgery at the London Hospital, &c., &c., 8vo, pp. iv. and 54. Price 2s. 6d. *net*.

FROM F. BAUERMEISTER, 49, GORDON STREET, GLASGOW:

Grundriss zum Studium der Gebertshuelfe in achtundzwanzig Vorlesungen und fuenfhundert-fuenfundsiebenzig bildlichen Darstellungen von Dr. Ernst Bumm, Ord. Professor und Direktor der Universitaets-Frauenklinik in Halle A.S. J.F. Bergmann, Wiesbaden. 1902. Price 14s.

Das Verhalten der Muskeln des weiblichen Beckens, im Zustand der Ruhe und unter der Geburt; von Professor Hugo Sellheim, Assistentarzt an der Frauenklinik der Universitaet Friburg i. B.; mit ix. Tafeln und 16 Abbildungen im Text. J. F. Bergmann, Wiesbaden. 1902. Price 14s.

FROM GAY AND BIRD, 22, BEDFORD STREET, LONDON:

Who's Who at the Zoo. By L. Beatrice Thompson, with 20 plates and over 100 drawings in the text. 4to, pp. xii. and 166, 1902. Price 5s.

CORNISH BROTHERS, BIRMINGHAM:

The Treatment of Abortion. By John W. Taylor, F.R.C.S., Professor of Gynæcology, Birmingham University, and Surgeon to the Women's Hospital.  
The Principles and Practice of Gynæcology. For Students and Practitioners. By E. C. Dudley, A.M., M.D., Professor of Gynæcology, North Western University Medical School. Third edition, revised and enlarged, large 8vo, pp. 761, with 474 illustrations, 60 in colour, and 22 full page plates in colour and monochrome. Price 21s. *net*.

ROCKLIFF BROS., LIVERPOOL:

Medical, Surgical, and Pathological Reports of the Royal Southern Hospital, Liverpool, 1901; edited by G. P. Newbolt, F.R.C.S., C. J. Macalister, M.D., and Lyn Dimond, M.B., Ch.B. Price 2s. 6d.

E. B. TREAT AND COMPANY, NEW YORK:

The Mattison Method in Morphinism, a Modern Humane Treatment of the Morphin Disease. By J. B. Mattison, M.D., Medical Director, Brooklyn Home for Narcotic Inebriates. Price 1 dollar.

And the following Pamphlets and Reprints.

Transactions of the North of England Obstetrical and Gynæcological Society, Monthly, 1902.

FROM THE UNIVERSITY OF TORONTO:

The Anatomy of the Osmundaceæ. By J. H. Paull.

By MURDOCH CAMERON, M.D., F.F.P.S.G., Regius Professor of Obstetrics and Gynæcology Glasgow University, &c.: Cæsarean Section and its Modifications, with an additional list of five cases (*Glasgow Hosp. Reports*, 1901).

By EDGAR GARCEAU, M.D., Surgeon to Out-patients in the St. Elizabeth's Hospital and in the Free Hospital for Women, Boston: Cystoscopic Appearances in Non-Tubercular Cystitis and Pyelonephritis in Women (*Boston Medical and Surgical Journal*, 1902, June 5 and 12).

By HEYDEN and Co., Dresden, through Burgoyne, Burbidges and Co., 12, 16, Coleman Street, London, E.C.:

The New Silver Therapeutics.

By W. K. JACQUES, M.D., Professor of Chemical and Microscopical Diagnosis, C.P.S., Chicago: The Microscope in the Diagnosis of Scarlet Fever (*Journal of the American Medical Association*, December 6, 1902).

By Dr. KURT KAMANN, Assistentarzt der Kgl. Universitaets-Frauenklinik zu Muenchen.: Kasuistischer Beitrag zur Eclampsie (*Muench. med. Wchn.* No. 20, 1902).



## SUMMARY OF GYNÆCOLOGY, INCLUDING OBSTETRICS, MAY, 1902.

### THE DISTINCTIVE EFFECTS OF PELVIC LESIONS UPON MENTAL DISTURBANCES.

HOBBS (*Amer. Journ. Obstet.*, February, 1902) reports that at the Homewood Retreat, Guelph, Ontario, where gynæcological examinations are uniformly conducted under an anæsthetic, it was found that in the last six years 253 out of 1,000 females had some pelvic disease or abnormality needing gynæcological treatment. Medical treatment of these lesions was found ineffective. The cases are classified as follows:—

(1) *Ovarian Disease*.—Forty-one cases treated for disease of the ovaries and tubes. The operations done were 7 hysterectomies, 25 single or double oöphorectomies, 9 conservative operations. Two died of pneumonia. The subsequent mental history was good:—

Acute mania	...	...	11 cases	...	7 recoveries
Chronic mania	...	...	23	„	9 „
Epileptic mania	...	...	2	„	0 „
Folie circulaire...	...	...	2	„	1 „
Psychocoma	...	...	1	„	1 „
Acute melancholia	...	...	3	„	2 „

Forty-nine per cent. recovered mentally. Ten other patients or 25 per cent. were distinctly improved.

(2) *Displacement of Uterus*.—Sixty-six cases. The round ligaments were shortened in 54 patients, ventrosuspension performed in 7, and total extirpation in 7. Two of the vaginal hysterectomies died—one from hæmorrhage due to the patient pulling out the ligatures, the other from bed sores two months after the operation. The mental recovery rate was as follows:—

Acute mania	...	...	26 cases	...	15 recoveries
Chronic mania	...	...	22	„	3 „
Epileptic mania	...	...	1	„	0 „
Puerperal mania	...	...	7	„	4 „
Acute melancholia	...	...	9	„	5 „
Chronic melancholia...	...	...	1	„	1 „

The mental condition was restored in 28, or 42 per cent., and was improved in 15 others, or 23 per cent.

(3) *Tumours, Malignant and Benign.*—For 9 cases of myoma, 2 cases of cancer of the cervix, 1 of sarcoma of the body of the uterus, 2 of tubercular disease, and 2 of inflammatory deposit in and around the uterus, the following operations were done: 8 abdominal hysterectomies, 4 vaginal hysterectomies, 1 myomectomy, and 3 coeliotomies, with saline lavage; one death occurred from exhaustion on the third day. Mental recovery rate as follows:—

Acute mania	...	...	...	1 case	...	1 recovery
Chronic mania	...	...	...	11 cases	...	1    „
Epileptic mania	...	...	...	1 case	...	0    „
Chronic melancholia	...	...	...	3 cases	...	0    „

Only 2, or 12 per cent., recovered, but the average duration of insanity prior to operation, even in these two, was three years. Six others were improved.

(4) *Disease or Injury of the Cervix requiring Plastic Operations.*—Sixty cases. Complete mental recovery in 19, or 31 per cent. In 14 others, or 23 per cent., improvement in the mental condition.

(5) *Diseases of the Uterine Body or its Lining Membrane.*—Fifty-two cases requiring curetting; all improved in physical health. Complete mental recovery in 25, or 48 per cent. Eleven, or 21 per cent., showed mental improvement.

(6) *Injuries to the Perineum.*—Eighteen cases, many of them with subinvolution, which was treated at the same time. Seven, or 39 per cent., recovered mentally. Three, or 17 per cent., improved.

The acute insanities were the most amenable mentally to favourable treatment of pelvic ailments. In the chronic cases melancholia gave better results than mania. Of the epileptic patients none recovered mentally. The conclusion to be drawn from the above experience is that aseptic gynaecological surgery ought to be introduced into institutions for the care of the insane, under proper safeguards against the performance of unnecessary operations.

J. F. J.

#### FIBROMYOMATOUS TUMOURS OF THE VAGINA.

RICHARD SMITH (*Amer. Journ. Obst.*, February, 1902) reviews 100 cases collected from various sources (the first fifty of the cases were published by Kleinwächter in 1882) and adds his own observations. It is unnecessary to refer

to them in detail. His conclusions are as follows: Fibroma (myoma and fibromyoma of the vagina) is a rare disease. It occurs most frequently in women between 30 and 40, but has been observed at ages ranging from 20 to 70. It occurs apparently independently of civil condition. No proof can be deduced to show that it affects fertility. It may obstruct labour when large. It may or may not affect coitus. There is evidence that in certain cases menstruation may be increased. The tumours, when small, rarely produce symptoms of consequence; when large they may prove to be the source of considerable suffering and even danger. The symptoms, when present, are pain, hæmorrhage, discharge, obstruction to bladder, and more rarely to bowel. No exact division of the case into fibroma, myoma, and fibromyoma can as yet be made. The tumours grow from the anterior and posterior walls in the proportion of about two to one. They may be sessile or polypoid, but with rare exceptions they are single. They are of very slow growth, and prone to œdema, necrosis and ulceration. The treatment is essentially surgical.

J. F. J.

#### TUBERCULOSIS OF THE FEMALE BLADDER.

STOECKEL (*Centralb. f. Gyn.*, 1901, No. 40) gives cases in which, when both microscopical examination of the urine and inoculations of animals were negative, the disease was manifest by cystoscopy, on the advantages of which he expatiates. The wonderful improvement in diagnostic technique should not be made an excuse for local treatment, the application of which should entirely depend on the clinical symptoms. In women the prognosis is not unfavourable, but chronic cases are better without local irritation. In one of the cases related severe tuberculous cystitis was much improved after the relief of menorrhagia depending on multiple fibroids; the vaginal hysterectomy entailed a vesico-vaginal fistula (afterwards cured by operation), and he suggests the analogy of the improvement in peritoneal tuberculosis after coeliotomy, and of some cases of cystitis after drainage, but does not recommend an artificial fistula as a means of treatment, and prefers to avoid surgical measures in acute cases. In the first case there was a bullous œdema, which in appearance he compares to a vesicular mole, about, and completely hiding, the mouth of the left ureter; that might have been primary, and have induced congestion, obstructed flow, and dilatation of the ureter and pelvis of the

kidney, but from the freedom of the mucosa of the bladder from tuberculous nodules and ulcers, he was inclined to consider the affection to have been a descending one from the kidneys.

MIRABEAU, Munich (*Centralb. f. Gyn.*, 1901, No. 44), explains the polypoid affection about the mouth of the ureter as a prolapse of the tuberculous mucosa of the ureter, and considers the circumscribed bullous œdema as secondary. In other respects he confirms Stoeckel's conclusions on the basis of twelve cases of his own, and likewise insists on the advantages of endoscopy in vesical tuberculosis.

#### CASTRATIO MULIERIS UTERINA.

PINCUS, Dantsic (*Centralb. f. Gyn.*, 1902, No. 8), gives the above name to the sterilisation of women by atmocausis. He holds it to be indicated only for women so ill that their lives are directly or indirectly in peril. He carried it out in a woman, aged 26, with phthisis, to prevent further pregnancy, and four years after the operation the uterus was quite atrophied and the cavity was completely obliterated from the internal orifice; and also in a 32-year-old IV.-para with Bright's disease, in whom the obliteration only affected the upper half of the cavity, but was there complete. Neither woman suffered any trouble from the induced sterility, though in the second the catamenia reappeared.

#### INSTRUMENTAL PERFORATION OF UTERUS.

WILMER KRUSEN (*Amer. Med.*, December 14, 1901) reviews the accidental perforations of the uterus and emphasises the care needed when using instruments after abortion, labour, or miscarriage, or when the uterus is softened by frequently recurring pregnancies. Failure to recognise acutely anteflexed or retroflexed positions of the uterus may lead to injury by improper direction of the instrument. The results of perforation may be:—(1) *Infection* and *peritonitis*; (2) *hæmorrhage*; (3) *injury* to some other viscus; (4) *poisoning* from chemical antiseptics sometimes used during the operation. Diagnosis of perforation can usually be made from the sudden slipping of the curette, and from the fact that it can be introduced further than would be possible in a uterus of that size. Simple return to bed and rest will suffice in an uninfected perforation; but coeliotomy may be required either in septic wounds or because of perforation of the bowel.

ON THE CAUSES OF PERFORATION OF THE UTERUS  
BY THE CURETTE.

CARUSO (*Archivio di Ostet. e. Gin.*, 1901, December) points out that, while it is generally admitted that perforation of the uterus may unfortunately happen during the process of curetting, and that such accidents are more common when the instrument is used during childbed, opinions differ as to the way in which the accident takes place. The prevailing idea seems to be that the perforation is made by the curette, and is, as a rule, in the fundus. Auvard, however, has suggested that this, in the non-puerperal uterus, is an exception, and that the tear, which the curette may follow up, is produced by the dilating instruments; and the author of this paper, concurring, expresses the opinion that instruments with two or three blades expose the patient to greater risk of perforation than other dilators do. It is possible that the curette may sometimes be passed up one of the tubes, and that in the puerperal uterus a false perforation may seem to exist, owing to a depression being produced in the uterine wall by the curette. Laceration of the cervix leads to inflammation of the uterine tissue and rigidity, and predisposes to further laceration and perforation during dilatation and curettage. In chronic metritis with spasmodic contraction of the isthmus, laceration and perforation are likely to occur if larger dilators than Nos. 9 or 10 (Küstner) are employed. It is better in such cases to make several small incisions with a scalpel. Auvard declares that perforations of the uterus will not happen after the use of branched dilators is abandoned; with this statement Caruso cannot agree, for he has known the uterus to be perforated by Küstner's graduated dilators, and, even outside the puerperal state, by the curette. Inflammations and degenerations of the uterine walls, tumours and tuberculosis, all predispose to perforation of the uterus, but if rigid antisepsis be observed, such perforation causes little or no trouble. Graduated metallic dilators, blunt at the ends, are to be preferred to the more conical ends of Hegar's dilators, which may be easily forced through a soft or diseased fundus.

F. E.

## PARAMETRITIS POSTERIOR, AN INTESTINAL AFFECTION.

MUELLER, Munich (*Centralb. f. Gyn.*, 1902, No. 9), on the basis of four years' experience, concludes that the affections described as parametritis posterior, periproctitis, patho-

logical ante flexion with dysmenorrhœa, retroposition of the uterus, &c., are generally due to an affection of the rectum at the spot where it is enclosed by the utero-sacral ligaments. He therefore recommends intestinal treatment, attention to diet, purgatives and clysters, and as an important supplement, the stretching of the ligamenta sacralia by massage from the vagina.

#### RETRODEVIATIONS IN NULLIPARÆ AND VIRGINS.

HAYD (*Amer. Journ. Obstet.*, 1901, November) points out that the general opinion that backward displacements are special to married women and multiparæ is erroneous, and that they are met with in nulliparæ, and even in young girls, much oftener than has been supposed. Among the last fifty Alexander operations performed by him, eleven were upon women who had never borne a child, and nine on young girls of whom one was only 15 years old. In these patients the retroflexion, with its train of nervous and painful symptoms, had generally existed from puberty, and in many the uterus was more or less infantile; on the other hand, the round ligaments showed no atrophy save in such as had been suffering for many years; in young girls they were rather more prominent than in multiparæ. Many such patients, in default of a gynæcological examination, are liable to remain sterile, or to lead a miserable existence, while surgical intervention, consisting in dilatation of the cervical canal, curettage, and Alexander's operation, if opportunely performed, is most beneficial. Pessaries are useless, as the displacement is fixed, and often associated with genital hyperæsthesia.

#### A NEW OPERATION FOR RETRODEVIATIONS OF THE UTERUS.

MONARI (*Semaine Médicale*, 1902, p. 47), in an illustrated monograph published last year at Bologna, describes a method of operating for retrodeviations of the uterus which he has, since January, 1898, employed in forty-two cases with uniformly good results, immediate and otherwise. To his knowledge five of these women conceived after the operation, four were delivered at term without accident, the fifth aborted at three months. His proceeding is as follows:—After opening the abdomen and separating any adhesions of the uterus to the intestines or omentum, the upper part of the peritoneal cavity is shut off from the small pelvis by a compress of warm gauze which presses the ileum towards the diaphragm. The

round ligaments are then seized, about 3 cmm. from their insertions, in pairs of Kocher's forceps, drawn to the abdominal wound, and divided between pairs of ligatures, a little outside the forceps; their median stumps are then separated from the broad ligaments, and the bleeding surfaces thus exposed are closed by Lembert's suture. The stumps of the round ligaments are then attached to the abdominal wall by three or four silk stitches passing through the serosa and the aponeurosis and fibres of the rectus muscle on either side. Finally, the utero-vesical pouch is shut off by a few interrupted stitches, and after a careful toilet the abdomen is closed.

#### RETROVERSION OF A BICORNED UTERUS; PERIMETRITIS.

SIMON (*Aerztliches Verein, Nürnberg*, 1901, October 3), reported the following case:—A young woman, married three years without conception, suffered for some years from abdominal and sacral pain, always persistent and severe, but at her periods becoming unbearable. Examination discovered a very small uterus in fixed retroversion, with round finger-thick organs extremely tender, passing from either side, which were taken to be the diseased tubes. Operation proved the condition to be a uterus bicornis embedded in the results of perimetric inflammation; what had been taken to be a small uterus was merely the vaginal but somewhat hypertrophied cervix; the uterus divided directly above the inner os and each half bent outwards almost at a right angle. The development of the tubes was quite rudimentary; the ovary on the left side was normal, on the right was absent. The uterus was freed from its adhesions and fixed, both by its point of division and by each horn, to the anterior abdominal wall. Total extirpation in a patient so young was not to be done. The severe pains due chiefly to the perimetritis completely disappeared, and the dysmenorrhœa was greatly alleviated though not entirely cured.

#### DOUBLING THE ABDOMINAL WALLS AFTER LAPAROTOMY.

HEIDENHEIN, Worms (*Centralb. f. Gyn.*, 1902, No. 1), has adopted the method of radical operation for umbilical hernia proposed by Piccolo (*Centralb. f. Chir.*, 1900, p. 36) to strengthen the union of the abdominal wound after the removal of large tumours from the peritoneal cavity. In such cases the recti muscles are almost always thrust apart and weakened, and at their inner margins thin, pale, and atrophied, while in the middle line the abdominal wall con-



sists merely of skin, a thin layer of fascia, and the peritoneum. No doubt also such patients are more than others liable to suture fistulæ, to enteroptosis with its distressing complications, descent of the liver and stomach, dislocated spleen, and chronic obstipation, and to umbilical hernia. Hegar has pointed out that after the extirpation of very large tumours there is sometimes a considerable excess of thin abdominal wall, and he and others have removed broad strips of superfluous cutis and serosa. The procedure adopted by Heidenhain in two cases after the removal of large tumours, was to separate a broad strip of skin and subjacent adipose tissue from the rest of the abdominal wall on each side of the median incision; this separation was immediately above the fascia, and there was hardly any bleeding. He then lifted up the right side of the abdominal wall and, with a continuous suture of fine silver wire, stitched the left side of the incision, exclusive of skin and subcutaneous tissue, to the peritoneum of the right side more than a hand-breadth outside the middle line; the stitches included half the thickness of the right wall. The right abdominal wall was then drawn over the left, just as in buttoning a double-breasted coat, and secured from the ensiform cartilage to the symphysis by a continuous suture, and the skin united in the middle line without removing any excess. The only objection he can see to this method is the long abdominal wound which is indispensable, but which has compensating advantages in rapidity and safety; the extrusion of the intestines can be prevented by a sterile cloth passed into the abdomen. Hernia is almost impossible, as the peritoneal surface brought into contact with wounded connective tissue forms a very strong union. In the first case, a virgin of 30, the tumour extended into both hypochondria; the other woman's abdomen had been 120 cm. in circumference, and the tumour weighed 48 pounds: the result was completely satisfactory in both. In simple cases it may suffice if the overlapping brings the median edges of the recti mm. into the median line. In the second case, he made the muscles themselves overlap. Too great constriction of space in the peritoneal cavity should be avoided; the possibility of subsequent pregnancy must be taken into account, and also the increase in adipose tissue, if the woman makes a good recovery. It seems unnecessary to remove any of the superfluous integument.

Dr. G. B. FERGUSON, President of the British Medical Association, reported (*Brit. Med. Journ.*, 1902, i., p. 187). Dr. Blake of the Roosevelt Hospital, in operating for um-



bilical hernia, sweeps away a large oval of skin, 12 inches by 8, around the hernial protrusion, separates the peritoneum from the muscles and stitches it together, then lays one flap of muscle, from 4 to 5 inches, over the other, stitches them together on both sides, and thus leaves a double muscular layer to resist the reproduction of the hernia. All the cases (twelve) he had operated on in this way were, so far, radical cures.

#### CONTRACTION OF THE RECTUM AFTER HYSTERECTOMY.

REBER (*Beiträge z. klin. Chir.*, Bd. xxi., 1) reports two cases from Hildebrandt's Clinic at Basle, in which, after total extirpation of the uterus for fibromyomata, digital examination, consequent on muco-sanguinolent discharge, disclosed stenosis of the rectum 9 cm. above the anus, that is, at the level at which the superior hæmorrhoidal artery begins its ramifications upon the bowel. Reber supposes that some operative lesion of this artery had interfered with the nutrition of the rectum and led to ulceration and cicatricial contraction, and this view was confirmed by histological examination which showed not only cicatricial contraction, but a loss of substance in the mucosa and a coat of granular tissue upon its surface; moreover, one of the patients a fortnight after the hysterectomy had discharged from her rectum a shred of necrosed tissue, the origin of which could not be determined by the microscope, but which probably corresponded to the portion of the gut missing. Hildebrandt exposed the stricture after resection of the coccyx and part of the sacrum, made a longitudinal incision in the wall of the rectum, cut away the cicatricial tissue without injury to the peritoneum, and closed the longitudinal incision transversely; the recovery was uneventful and there was no recurrence.

#### MYOMATA DURING THE CHILD-BEARING AGE.

V. STRAUCH (*Samml. klin. Vorträge*, N. F., No. 277), in this essay, based on numerous personal observations and the existing literature, discusses myomata as met with between puberty and the menopause, and comes to the following conclusions: Myomata interfere less than one might suppose with conception, and the cause of the comparative barrenness of women, the subjects of such tumours, must not be assumed to lie in those tumours, but should be diligently sought for elsewhere (gonorrhœa, &c.) Pregnant women with myomata generally carry to term, but should be kept

under careful observation throughout gestation. At the commencement of pregnancy myomata rapidly increase in size, but later on when the foetus appropriates more material in its development they remain stationary, or, in exceptional cases, may even get smaller. Operation during pregnancy is not to be undertaken except on the strongest indications; displacements of the genital canal by these tumours do not indicate operation; however extreme, they generally reform themselves spontaneously and allow the labour to take place in the natural way. Nor should any attempt be made to repose small myomata found in the pelvis during pregnancy, unless they lead to symptoms of incarceration. Even if such symptoms should arise the treatment in the early months should be expectative as far as possible, and reposition should be deferred till as near term as may be. However easily reposition may be effected, the operator must always be prepared to open the abdomen for internal hæmorrhage. When operation has to be undertaken during pregnancy, one can never tell beforehand whether the uterus can be preserved or not, and even when only the myoma has to be removed, the uterus often (about once in five times) ejects the fruit of conception. Vaginal operations, as more frequently inducing abortion, should be avoided. The induction of abortion or premature labour are proceedings which should be altogether abandoned in cases of myoma. While conservative practice is to be adhered to before term, when labour has commenced and any anomaly presents itself active and energetic measures should be immediately adopted; to trust too much to nature will endanger the lives of both mother and child. Inefficient uterine contraction, primary or secondary, is often met with in association with these tumours; forcible extraction with forceps or otherwise should never be attempted, laparotomy is far less serious and less dangerous for both mother and child. Enucleation or morcellement by the vagina cannot be recommended, the bleeding is considerable and its control neither easy nor certain, moreover delivery would have to be effected after the operation. The ideal proceeding, when the pelvic outlet is obstructed by myoma, is to perform a conservative Cæsarean section after labour has begun, and to remove the tumour, and so give the woman a living child and also a uterus fit for childbearing. To leave the myoma behind and trust to the uncertainties of castration is generally no more than to postpone laparotomy. If in an uncomplicated case the uterus has to be sacrificed at the end of pregnancy, supra-

vaginal amputation will give the best result. If a case of myoma in pregnancy or labour be infected, and the child be dead or not yet viable, after thorough disinfection of the vagina and cervix, the cervix should be stitched up and the entire uterus and its contents be removed; but if the child be alive and viable, Cæsarean section should first be performed, in spite of the infection, the uterus being of course pulled out of the abdominal cavity, and total extirpation should be carried out afterwards. The dangers of myomata in the third stage of labour have been exaggerated; there is seldom any trouble under expectative treatment. Labour so complicated by myoma as to be necessarily abnormal should take place in Hospital; the attendant on such a case should be expert in abdominal surgery as well as in obstetrics.

#### VAGINAL MYOMOTOMY: ENUCLEATION OR TOTAL EXTIRPATION.

W. THORN (*Centralb. f. Gyn.*, 1902, No. 11), in a long article, discusses the relative advantages of enucleation and total extirpation for the removal of myomata. A. Martin and Olshausen have pronounced very distinctly in favour of the former, Martin on the basis of fifty recent operations at Greifswald, forty vaginal and ten abdominal, with three deaths, and Olshausen on sixty-six abdominal enucleations with five deaths. Thorn formerly held the same opinion, and in Ruge's "Festschrift," among thirty-two vaginal myomotomies, reported twenty-six enucleations and only six local extirpations, but he has seen reason to change his views, and in ninety later cases has done only twenty-six enucleations compared with sixty-four total hysterectomies, and this, not only in order to avoid the risk of overlooking the presence of existing myomata and the possible subsequent growth of others, and because total extirpation is both simpler to perform and less dangerous as regards hæmorrhage and sepsis, but also because a large proportion of his patients are of the labouring class, to whom it is of the first importance to obtain permanent relief and avoid secondary operation. He deems the evils of the artificial menopause to have been much exaggerated, and now, when the dangers of the operation are not increased by doing so, removes the ovaries in women over 40, as in three instances he has found tumours develop in ovaries left behind as sound. He does not believe that the number of abdominal or vaginal radical operations will be permanently limited by preference for enucleation, and insists that the

infinite variety of these tumours and the individual experience of the operator demand that, as regards the proceeding to be adopted, the decision must be made in each case on its own merits, but that vaginal operations for myomata have on the whole such satisfactory results that they should gain favour, and that, as Fritsch has laid down, whatever can be operated upon by the vagina should be operated on by the vagina.

#### THE INFLUENCE OF PREGNANCY AND THAT OF CLIMACTERIC AGE UPON THE PERMANENT RESULTS OF RADICAL OPERATION FOR CARCINOMA OF THE UTERUS.

HENSE (*Zeits. f. Geb. u. Gyn.*, Bd. xlvi., Heft 1) has collected 122 cases in which the radical operation for carcinoma of the pregnant or puerperal uterus has been performed by various operators. Of these eighty-two date at least five years before his conclusions, but half of them from various reasons are not available for his investigation. The proportion of permanent cures in the remaining forty-one was 24 per cent. On the other hand, in seventy-three valid cases of radical operation for cancer in the climacterium, the permanent cures were 50 per cent. These results confirm the dictum that the prognosis of the permanent results of the radical operation for uterine carcinoma is influenced favourably by the climacteric and unfavourably by pregnancy.

#### A THIRD SERIES OF THIRTY OPERATIONS FOR UTERINE CANCER.

WERTHEIM, Vienna (*Centralb. f. Gyn.*, 1902, No. 10), reports that in his third series of operations he lost only three patients, from embolism of the pulmonary artery, shock and peritonitis respectively; uretero-vaginal fistulæ occurred in two cases. The percentage of cases operated on was 52·9 compared with 29·2 and 40 in the first and second series. The technique of the operation remains the same, but Wertheim points out that the extirpation of the lymphatics is not the only advantage sought for in his method, he considers extensive exeresis of the parametrium quite as important.

#### VAGINAL HYSTERECTOMY FOR CANCER.

PURCELL (*Med. Press*, 1902, February 5), in a paper read at a meeting of the Metropolitan Branch, West London District, of the British Medical Association, held at the

Cancer Hospital, said :—In carcinoma of the uterus the same holds good as in cancer of the breast. The younger the patient the worse the prognosis. Early diagnosis is of the utmost importance, as malignant disease detected early can be operated on with every hope of success, and vaginal hysterectomy is not a dangerous operation. In the prognosis after operation, much depends on the position of the disease, its extent, and the length of time it has existed. My first case of vaginal hysterectomy (*Lancet*, 1885, i., p. 200) was done on September 23, 1884, and made a good recovery. The patient had a papillomatous growth, about the size of a cricket ball, filling up the vagina, attached to the os and left vaginal wall, and excessively vascular, which was removed by means of the galvanic wire *écraseur* without loss of blood. While examining the charred stump I found I had opened the peritoneum into Douglas' pouch. I decided the only chance of the patient being freed of the disease was to extirpate the whole uterus, and with the consent of my colleagues I proceeded to do so. One ovary, which was cystic, was removed; the other appearing healthy was left.

Other cases followed, and my fourth was a test case sent up by the late Mr. Lawson Tait from the Birmingham Hospital for Women. Dr. John W. Taylor represented Mr. Lawson Tait; others were present, including Mr. Henry A. Reeves, and my colleagues, Dr. Snow and Mr. Jessett. The operation was performed on June 23, 1887, at the Cancer Hospital, and reported in the *Lancet*. The woman made a good recovery, and after this, vaginal hysterectomy became an established and recognised operation. I firmly believe that if my first six cases had not been successful, the operation of vaginal hysterectomy, so far as England was concerned, would have been tabooed for years. The Cancer Hospital may be proud to be the pioneer of an operation that has given signal relief and cure to many. The operation has been performed here in over 300 cases, and the mortality which in the early series was 17 per cent., is now, by the better selection of cases, brought down to 2 or 3 per cent. English surgeons and gynæcologists can now furnish successful cases by the hundred, yet I would never recommend the performance of vaginal hysterectomy without explaining the risks of the operation to the patient and her friends.

#### GRAPE-LIKE SARCOMA OF THE CERVIX UTERI.

EMMET (*Amer. Journ. Obst.*, March, 1901) reports a case of grape-like sarcoma of the cervix, "träubige sarcom." The

growth closely resembles an hydatiform mole or myxomatous degeneration of the chorion, and according to Pfannenstiel is a sarcoma infiltrated with lymph. The patient, aged 19½, and single, was admitted April 2, 1900. She had been a delicate child, and had had scarlet fever and diphtheria twice. Menstruation began between 16 to 17, three days, moderate, painless and regular. Two months ago she began to suffer pain in left ovarian region, navel and back, worst after menstruation. One month before admission she was examined because of an offensive discharge, and found to have a polypus, which presented at the vulva, and a piece the size of a small pear dropped off at that time. On admission the vagina was found to be filled by a dark red polypoid mass which sprang from the posterior lip of the cervix. The growth was removed with scissors and was cut in a deep wedge shape out of the cervix. The uterus was curetted, and iodised phenol applied. The patient made apparently a good recovery and the pathological report was "simple fibrous polypus." On November 7, 1900, seven months later, she returned. A profuse vaginal discharge had come on in May, had continued, and latterly great bearing down pain and pieces of flesh coming away; a mass of pendulous grape-like bodies springing from the entire circumference of the os uteri, filled the vagina and there were some growths of the same character on the vaginal mucous membrane near the cervix. In view of the previous pathological report a high amputation of the cervix was performed and the pathologist reported "spindle-cell sarcoma." She declined any further operation and four months later discharge came on again with intermittent hæmorrhage and much pain, and she died on April 30, 1901.

J. F. J.

#### TUBERCULOSIS OF THE FEMALE GENITALS.

MERLETTI (*Archivio di Ostet. e Ginec.*, 1901, December) sums up the results of a very extended and laborious investigation of the anatomical and clinical aspects of tuberculosis of the female genitals in the following way:—

(1) Tuberculosis of the genitals is more common in the female than in the male, and is met with in 12·6 per cent of tubercular women, but in only 2·4 per cent. of tubercular men.

(2) This greater frequency seems to depend not merely upon the more intimate relations of the female genital organs with the peritoneum and intestine, but also upon causes of

infection inherent in the functions of generation, for in tubercular women genital tuberculosis is met with in 22·8 per cent. during the child-bearing age, in 7·3 per cent. before puberty, and in 20·6 per cent. after the menopause.

(3) Though for the most part secondary (81·4 per cent.), in a considerable number of cases genital tuberculosis is primary (18·6 per cent.).

(4) Tuberculosis of the uterus is not so rare as has been supposed; it was met with in 75 out of 172 cases in which the genitals were affected. It is admitted that in the great majority of instances the infection of the uterus is secondary to that of the tubes.

(5) Hyperplasia of the genitals, and especially of the uterus, may be accepted as an anatomical condition favouring the development of tubercle, and is very frequently associated with tubercular disease.

(6) *Cervical tuberculosis* is met with in three forms: (a) the miliary, which is the most easily recognised; (b) the catarrhal, which may be mistaken for simple catarrhal cervicitis; and (c) the ulcerous form, which macro- and microscopically may very closely resemble cancrroid of the vaginal cervix.

(7) Petit's distinction of the forms which tubercle may assume in the body of the uterus, as "endometritic," "interstitial," and "mixed," is the most expedient from the clinical and the most exact from the anatomical point of view.

(8) The microscopical demonstration of bacilli in the uterine secretion in cases of tubercular disease of the uterus itself or of the adnexa, is extremely difficult.

(9) When the *endometrium* is the seat of the disease, curettage may aid in the diagnosis by permitting the recognition of characteristic lesions (giant cells, tubercular follicles), but except in the earlier stages of the disease, the bacilli are as hard to find in the scrapings of the uterus as in the secretion.

(10) The inoculation of animals with the uterine secretion is most valuable in the semeiology of tuberculosis of the uterus or of the appendages.

(11) There is some reason to believe that the uterine secretion may be infectious when the tuberculosis affects the peritoneum only, and not the uterus or adnexa.

(12) The *tubes* are the most favourable seat for the disease, and were affected in 157 out of the 172 cases of genital tuberculosis.

(13) In acute miliary puerperal tuberculosis a caseous focus is frequently found in the tubes.



(14) Tubercular salpingitis is, almost always, bilateral

(15) In tubercular salpingitis, more often than in other kinds of inflammation, owing to the constant closure of the abdominal ostia, and the hyperplasia generally affecting the tubes (W. A. Freund), an objective sign for diagnosis may be found in the presence of a tumour in form like a rosebud

(16) The following forms of tubercular disease of the tubes have been recognised: (a) A tubercular perisalpingitis, in which the serosa only is the seat of granulations; (b) a miliary parenchymatous salpingitis, in which the mucosa and muscosa are both affected; a tubercular endosalpingitis, in which the mucosa alone is involved (rare, Williams).

(17) The epithelium of the tubal mucosa suffers with the evolution of the disease; the usual ending is caseous degeneration.

(18) The presence of nodules at the isthmus of the tubes (salpingitis isthmica nodosa) is not pathognomonic of tubercle; but such nodules are more frequently found in this connection

(19) Such nodules are either congenital, to be referred to Müller's or Wolff's ducts, or are due to some chronic inflammatory process (gonorrhœa, tubercle, &c.).

(20) The *ovary* exhibits a certain resistance to tubercular infection (only 25 instances in 172 cases of genital tuberculosis). This seems most probably to arise from the timely beneficial protective action of exudations and adhesions of the pelvic peritoneum by which the gland has been encapsuled; perioöphoritis is common but true oöphoritis is rare.

(21) More than half of the tubercular ovaries met with exhibit cystic degeneration.

(22) The tubercular process seems to originate in the elements of the stroma and not in those of the ovisacs.

(23) In *diagnosis*, great value is to be given to the prominence, on digito-rectal examination, of granules and nodules about Douglas' pouch and the sacro-uterine ligaments (granulo-nodular Douglasitis).

(24) In addition to the local objective signs, the anamnesis of the case and the general condition of the patient, especially as regards the peritoneum, intestine and lungs, are of very great importance in deciding whether any affection of the genitals may be tuberculous or otherwise.

F. E.

GOROVITZ, Paris (*Rev. de Chir.*, 1901, April to October), on the basis of all the cases hitherto published, discusses the symptomatology, diagnosis (histological), and prognosis of tuberculosis of the genital organs of women, and comes to



the following conclusions:—Such disease is much more common than was formerly supposed, and thanks to histological and bacteriological investigation and to the method of inoculation, can now be diagnosed in many cases which would formerly have been unrecognised. The examination of the discharges and of particles removed by the curette is of the greatest aid in tuberculous endometritis, which is now known to be invariably the result of some other affection, and most commonly of tubal disease of the same kind. Clinical experience and the results of operation prove that this latter form of tuberculosis induces more or less marked reaction in the peritoneum, especially that form of peritonitis with encapsuled exudate, called by Cruveilhier the ascites of young girls. It is therefore imperative in operating on women for tuberculous peritonitis, to ascertain the condition of the adnexa, which will often be found to be the seat of the primary disease, and which whenever it is possible, should then be extirpated, a proceeding that has a most beneficial effect on the peritoneal symptoms. The success Bouilly has had in this way, obtaining in twelve cases twelve cures permanent for 7, 4, 4½, and 2 years, is an encouragement to radical treatment. In its pathogenesis, tuberculosis of the female generative organs may develop from above or below, more often apparently from above. Clinical experience points to the possibility of infection from coitus, and experiments on animals support this idea; the presence of tubercle bacilli in the semen explains this mode of infection. Experimental research by the authoress herself proved that the tubercle bacillus can implant itself in the uninjured mucosa of the genital tract, proliferate there, and cause lesions characteristic of tuberculosis.

#### PRIMARY ASCENDING GENITAL TUBERCULOSIS.

V. HAUSCHKA (*Wiener klin. Wchns.*, 1901, No. 51) reports the case of a woman of 29, whose cervix was the seat of a hard tumour, the size of a hazel nut, soft prolongations of which seemed to fill the cervical canal. After total extirpation (by the vagina) the growth proved to be undoubtedly due to tuberculosis, and no error was possible as to the seat of its origin.

ALTERTHUM, Freiburg (*Centralb. f. Gyn.*, i., 1902, No. 8), reports: A polypoid excrescence was found on the posterior lip of the cervix of a woman of 36, and bled very easily; the entire pelvis was filled with nodular masses of various consistence, and the case at first was supposed to be one of

malignant new growth. Microscopical examination of the excised polypus proved that it was one of tubercular infection extending from the cervical mucosa; moreover the tubercle bacillus was found in the scrapings of the mucous membrane.

#### GONOCOCCAL PERITONITIS.

FRANK and KOEHLER (*Amer. Journ. Obst.*, March, 1902) report another case and from their own observations and work conclude that: "The gonococcus is in fresh cases a dangerous factor, and even in very old cases may become so, and may by its influence cause the death of the patient." It must always be borne in mind that the circumstances that influence the virulence and toxicity of the organism are so numerous that the conditions which may be said to be indispensable for its producing disease are all relative. One reported case throws doubt on Bumm's assertion that the gonococcus is only pathogenic when implanted on the mucosa, and is soon destroyed in serous cavities unless there is a mixed infection. The connective-tissue proliferations also which lead to stricture are due to its penetrating the sub-mucous tissues. Again, a healthy young adult male contracted gonorrhœa, in the second week both ankles were tender, painful and swollen. When the ankles improved the metacarpel extremity of the index finger of the left hand became suddenly inflamed and developed into an acute abscess which burst. Examination of the pus showed plentiful gonococci.

One of the authors reported (*Medical News*, October, 1895) a case of acute general peritonitis after operation for gonorrhœal pyosalpinx, in which gonococci were found in the pus in the pelvis. The case now reported is as follows: The patient, suddenly seized with pain during her work, felt as if something had given way in her abdomen. Profound shock, from which she rallied under treatment, was followed by acute obstruction, and for a week efforts had been made to get a movement of the bowels, without success. When first seen by the authors a diagnosis was made of a tumour upon the left side of the abdomen, probably a fibroid, with peritonitis. She was not in a condition to bear an operation. Croton oil caused some small movements of the bowel, distension was diminished, but vomiting continued. In about a week pain came on in the left leg, with anæsthesia and motor paralysis below the knee, and gradually gangrene set in. The left parotid gland was now observed to be slightly swollen and rapidly increased in size. She went from bad to worse; the distension of the abdomen and vomiting

persisted though the bowels were moved, and in three days she died. *Post mortem*.—Diffuse peritonitis upon the right side, low down; surrounding the caput coli and filling the right iliac region, was a quantity of thick, slightly bloody purulent material which came from a ruptured tubal abscess of that side. The uterus was beset with fibroid tumours, some undergoing calcareous degeneration, and one supuration. On the left side there was a large tubal abscess, containing at least a pint of pus. At the bifurcation of the femoral artery into the anterior and posterior tibial, a completely adherent clot blocked all three vessels. The left parotid gland was converted into a large cavity, containing eight or ten ounces of pus. Bacteriological examination of the pus, the blood, and the clot, gave pure cultures of gonococci from all. The lesion of the tubes had probably existed for a long time, and the pus nevertheless still retained its virulent characteristics.

J. F. J.

#### DISPLACEMENT OF THE OVARY.

ROSE, Berlin (*Semaine Médicale*, 1902, p. 56), had under his care a girl of 22 suffering from intolerable pains in her left hypogastrium, and after the most varied remedies had been tried in vain (baths, massage, electricity, &c.), opened her abdomen under the belief that the case was one of ureteral calculus; the supposed calculus turned out to be the ovary bound down to the psoas muscle by a thick fold of peritoneum; the division of the retaining band and reposition of the ovary in the small pelvis gave complete relief. Another case in which the trouble was a small solid tumour at the left external abdominal ring, in its extreme sensibility resembling a neuroma, proved on incision to be one of strangulation of the ovary by the inguinal ring. Here also complete cure was obtained by the reduction of the prolapsed organ, although it was considerably deformed by pressure. Such anomalous positions of the ovary merit more attention than they have hitherto received, not merely because of the agonising pain to which, without any change in the ovarian tissue, they may give rise, but also on account of the diagnostic errors to which they have led.

#### TORSION OF OVARIAN CYSTS.

RENTON (*Glasgow Med. Journ.*, 1902, January) reports four cases of bilateral ovariectomy, all successful. There were gangrenous cysts in all cases, in one due to a thrombus in the pedicle, in the others to torsion. His experience concurs

with Kelly's, that on the left side the torsion is from right to left, and *vice versa*.

#### BILATERAL OVARIOTOMY DURING PREGNANCY.

LOEWENBERG, Breslau (*Centralb. f. Gyn.*, 1901, No. 51), reports: A multipara of 26, in the third month of pregnancy, fell ill with vomiting. A large tumour in Douglas' pouch was diagnosed as an ovarian cyst with a twisted pedicle. Laparotomy disclosed a large dermoid with a twisted pedicle on one side, an ovarian cyst on the other. Ovariectomy and resection of the ovary. Pregnancy uninterrupted.

#### SUPPURATIONS OF THE ADNEXA.

MANDL and BERGER (*Archiv. f. Gyn.*, Bd. lxxiv., S. 1), on the basis of the results of Schauta's operations during the past two years, recommend that when possible intervention, particularly when the operation is by the abdominal route, should be delayed till the pus has become sterile. Unfortunately there is no means of determining when this is the case, as a bacterial examination cannot in all cases be made. Kiefer opined that in from nine to twelve months the virulence of adnexal suppurations disappeared, but every day experience proves that this is not so. Abdominal intervention during an acute attack is undoubtedly extremely dangerous, for Schauta lost six out of twelve women operated on under such conditions. Intervention by the vaginal route, even under similar circumstances, is much less serious, for in ten cases he did not have a single death. The total mortality of his abdominal operations in these cases, twenty-two of total castration with two deaths and ninety-nine of salpingo-oöphorectomy with thirteen, was about 11 per cent., that of his vaginal operations, 116 with three deaths, only 2.6 per cent. The mortality of total castration, that is, hysterectomy combined with double salpingo-oöphorectomy, is less than that of salpingo-oöphorectomy alone, for the reason that hysterectomy not only affords drainage but removes the uterus, a continual source of infection. The vaginal operation is not only safer than the abdominal, but is more satisfactory in its later results, and has given in Schauta's hands 81 per cent. of permanent cures compared with 50. Abdominal castration without hysterectomy exposes the patient to those accidents of the artificial menopause which may in great measure be imputed to exudations on the tubal stumps of the infected uterus. This is proved by the fact that though the mortality of total abdominal castration is relatively high.

its later results are as good as those of vaginal castration (81 per cent. of permanent cures), and this fact should be remembered whenever the presence of adhesions or complications interdict the vaginal operation. In confirmed and unabsorbable suppuration, conservative methods, such as puncture or unilateral extirpation by the vagina, give but bad results, and in nearly all cases necessitate secondary hysterectomy. It is better to temporise till a favourable moment can be chosen and then intervene radically.

#### PYOSALPINX.

SIMON (*Aertzlicher Verein, Nürnberg*, 1901, October 3) removed the right tube from a virgin of 29, who twelve years previously had, for several months, suffered from severe hypogastric inflammation apparently originating in the cæcum. About three months before the operation she was suddenly attacked with acute abdominal pain and fever, which continued till her admission to the Clinic, with peritonitis, meteorismus, fever, frequent vomiting, and an evening temperature of about  $39^{\circ}$  ( $102.2^{\circ}$  F.). No leucorrhœa; hymen intact. To the right of the uterus there was a very tender elastic tumour quite as large as a fist. Laparotomy showed recent peritonitis, and about 750 ccm. of greenish-yellow pus mixed with flakes was removed. The peritoneum was much injected. On the right side a loop of intestine was intimately adherent to the right tube, which was the size of a child's arm and full of pus, and formed a tumour passing forward from the retroverted uterus and inserted almost perpendicularly on to the bladder. The intestine was detached with difficulty; the vermiform appendix also was closely adherent to the tumour, but there was no evidence of perforation of it as, after the intestine was separated, could be seen in the tube. On the left side the adnexa were healthy. After removal of the right tube, and after careful cleansing, the abdominal cavity and pelvis were plugged with sterile gauze, the end of which was led through the abdominal wound. This drainage proved most satisfactory, the secretion was normal, the fever fell in the next few days, and the removal of the last gauze on the seventh day was followed by complete healing. The ætiology of the case remains obscure; gonorrhœa and tuberculosis are out of the question. The abnormal direction of the tube bending away forwards from its middle horseshoe-shaped position, and closely attached to the bladder, was remarkable.

## ASEPTIC PYOSALPINGITIS.

LEGROS, Paris (*Ann. Gyn. Obstet.*, 1902, Feb.), reports the following case: A girl of 17, five days after coition, developed severe abdominal pains and a yellow vaginal discharge with intense pain during micturition, and was obliged to take to her bed. She was admitted to hospital six days after falling ill, with all the above symptoms intensified, but under treatment they quickly improved, and in eight days her temperature, which had been as high as  $39^{\circ}$ , fell to  $37^{\circ}$ . The fever, however, reappeared ( $38.6^{\circ}$ ), and on vaginal examination both tubes were found to be enlarged and tender, and a diagnosis of double salpingitis was made. The acute symptoms disappeared under treatment, but one month after the exacerbation, as the tubes were found to have increased to nearly double their former size, they were both removed by laparotomy, the left one being as large as an apple and the right rather smaller. Both contained yellow pus, which, within an hour of the operation, was submitted to a severe bacteriological examination; though about thirty tubes of different media were inoculated the results were absolutely negative, and injections into the peritoneum of two rabbits produced no infection.

P. Z. H.

## THE DIFFERENTIAL DIAGNOSIS OF EXTRAUTERINE PREGNANCY.

FABRICIUS, Vienna (*Zeits. f. Heilk.*, Bd. xxii., N. F. Bd. ii., Heft 3), after very thoroughly discussing the diagnosis of ectopic pregnancy and the anatomical changes to which it leads, describes in detail, on the basis of numerous cases, the conditions which should prevent one from erroneous diagnosis:—

(1) A certain similarity to a large retrouterine hæmatocele in regard to the results of palpation may be given by: (a) A gravid retroflected uterus of three months, especially if it be incarcerated. Gradual increase of the troubles, uniform filling up of Douglas' pouch, or the occurrence of uterine contractions, point to a retroflected gravid womb, while the sudden occurrence of symptoms, often most distressing, the growth of the tumour in the course of a few days, the absence of much relaxation of the portio and vagina, the discharge of decidua, and the want of symmetry and unequal consistence in the depression of the posterior vaginal vault are proper to hæmatocele. A recent hæmatocele is softer, an old one much harder than a retroflected gravid uterus; and slight

risers in temperature are very common with the former. In devious cases the sound may be used with caution, but even then mistakes may be made, as in one instance in which the sound after perforating the uterus entered the tubal sac. (*b*) Temporary amenorrhœa with hæmatometra. (*c*) A cyst in Douglas' pouch, especially when the troubles have come on suddenly from torsion of the pedicle. The diagnosis will then be helped by the history of the previous existence of the cyst, the absence of bleeding or decidual discharge, the general condition, and especially by the state of the pulse. (*d*) Soft myomata of the posterior cervical wall, or long pedicled myomata developed into Douglas' pouch; but these are not associated with cessation of the menses, but with their increase, and the troubles will have existed for some time. Moreover, the symptoms are not alarming, and save with pelveo-peritonitic complications, or with sarcoma and especially metastases of such, the temperature is normal. (*e*) Lastly, the results of palpation may be imitated by para- and perimetritic exudates, but here the anamnesis, the fever, the ætiology (following injury, labour, or inflammatory adnexal swellings), the much more severe troubles at stool, and especially the mode of extension of the exudates, should easily admit of the distinction being made. In all these cases the difficulty of diagnosis increases with the size of the tumour, for instance, an old and not very large hæmatocele is hardly to be distinguished from old exudate.

(2) The various possibilities of mistake in case of tumours of the adnexa, or other tumours lying to the side of the uterus, Fabricius illustrates by many interesting cases. The rupture of a gravid tube resembles that of a pyosalpinx, but in the former the symptoms of collapse will be more marked, in the latter those of infection. Even coprostasis may lead to error when associated with amenorrhœa.

(3) A tubal pregnancy may be overlooked if it comes to lie in front or behind the uterus, and is so mistaken for a uterine one till sudden hæmorrhage into the peritoneal cavity discloses the real condition; this happened twice in the same patient under Fabricius' notice.

(4) Under certain conditions even an intrauterine pregnancy may lead to an erroneous diagnosis: (*a*) An unusually relaxed corpus uteri may be taken for an extrauterine sac, and the cervix for the entire uterus (Muret). (*b*) When the relaxation of pregnancy is extreme, especially when there is hypertrophy of the collum. Fabricius was twice deceived by the uterus having fallen over to one side. Muret says this



mistake is to be avoided by following out the course of the round ligaments and the departure of the ligamenta sacro-uterina from the upper end of the collum, by the lateral position of the adnexa to the suspected body of the womb, by the contractility of the uterus (if very slack, under electric stimulus), and finally by drawing down the portio during the examination.

(5) The diagnostic signs of pregnancy may be greatly obscured by deformities of the uterus. Fabricius points out that in every case of tubal rupture or abortion, or of continued development of the extrauterine sac, a tumour is always to be felt extending down to the pelvic floor and more or less completely filling the smaller pelvis.

(6) Simultaneous extra- and intrauterine pregnancy. Fabricius raises the question whether the use of preventives, and more especially of acid injections, may not so weaken the spermatozoa that ovula, fertilised by such, have less vital energy and power of advance than under normal conditions.

#### THE PERMANENT RESULTS OF CONSERVATIVE TREATMENT OF EXTRAUTERINE PREGNANCY INTERRUPTED IN THE EARLIER MONTHS OF GESTATION.

V. SCANZONI, Leipsic (*Archiv. f. Gyn.*, Bd. lxx., Heft 3), could not find in the subsequent course of 200 cases of extrauterine gestation any essential difference in the results of conservative treatment and vaginal or abdominal operation: at all events he never met with permanent ill-health after conservative treatment, and recommends expectant methods provided the patient can be brought into hospital, where, as operation, if necessary, can be promptly performed, intervention can be postponed without anxiety.

#### TUBAL RUPTURE AND TUBAL ABORTION; EXPECTANT TREATMENT.

FAULK, Berlin (*Berliner klin. Wchns.*, 1901, No. 35), gives short accounts of twenty-two cases of tubal pregnancy. In his opinion there is no certain sign to determine between tubal rupture or abortion; the course of some cases of rupture resembles the slow successive bleedings of abortion, while abortion is sometimes accompanied by the stormy symptoms of rupture. As regards treatment it is most important to ascertain whether there has been hæmorrhage into the peritoneal cavity, and whether the bleeding is still going on or not, and whether the tube is completely emptied or still contains parts of the ovum. The symptoms of hæmo-



rhage into the peritoneal cavity, apart from the results of palpation, are the suddenness of the attack, the rapid exhaustion, continued pain with intermittent hæmorrhage, uterine bleeding, the decidual discharge, and repeated attacks of faintness. Even when the hæmorrhage has ceased, close clinical observation is demanded, as it may return. The condition of the tube can only be ascertained by a thorough examination, which should not be undertaken until all the preparations for operation have been made, unless bleeding into the peritoneal cavity is still going on, when operation should be at once undertaken without waiting for preparations. Collapse, when there is a very large hæmatocele, may be treated expectantly, but the patient should be made ready for operation, which should not be delayed if her general condition gets worse, or if the size of the tumour is increasing. Falk concurs with Fehling that an expectant treatment should be adopted for small hæmatoceles and isolated small tumours (solitary hæmatoceles, retention in the tube of a dead ovum of the first two months and blood with it, tubal abortion). Only persistent uterine bleeding and pain unrelieved by continued rest in bed, are indications for operation. The abdominal way should be chosen except when there is reason to suppose that a long existing hydrocele has putrefied or suppurated. In not very extensive hæmatocele when no absorption has taken place for some weeks, vaginal incision may be the method of choice, though even then laparotomy is generally to be preferred.

UHLE (*Chemnitz Med. Soc.*, February 12, 1902), in connection with a personal observation of what was apparently a complication of tubal abortion and tubal rupture, referred to the recent works of Kuehne, Fueth, Aschoff, Ulesko Stroganowa, and Lange, as having essentially reformed the views formerly accepted as to the anatomy of tubal pregnancy, since these authors have shown that in the tube the ovum, on account of the deficient decidual reaction, embeds itself in the tube wall, and the villi and columns of Langhans' cells penetrate the wall and inevitably destroy its constituent elements, so that a tubal pregnancy must be considered a malignant tumour. Moreover, it is certain that even after the death of the ovum the foetal cells may continue their destructive action and cause fatal hæmorrhage. This change in our ideas of the anatomy of tubal pregnancy must necessarily influence the indications for its treatment, and conservative expectant measures, with the attendant dangers of recurrent hæmorrhage, of the decomposition and putrefaction of the

hæmatocele, and of deficient absorption or organisation of the escaped blood, must be gradually abandoned. Uhle points out the advantages of early radical intervention, not omitting the consideration of the effect upon the patient of another conception, and from a comparison of the results of active and expectant treatment shows that statistics are greatly in favour of early operation. The case he relates, a fatal one, is an example of the malignant nature of extrauterine gestation, and a warning that in seemingly slight cases of tubal abortion one must be on one's guard, and even when all seems to be going on well, be fully prepared and ready to perform laparotomy (v. *ante*, vol. xvii., p. 34, Stroganowa).

#### ON THE FORMATION OF DECIDUA IN THE TUBE.

LANGE, Dresden (*Monatss. f. Geb. ü. Gyn.*, Bd. xv., S. 48), has made a remarkable addition to the literature of ectopic gestation on the basis of examinations of twenty cases of tubal pregnancy; abortion had taken place in twelve, rupture in five, in one instance neither abortion or rupture. Four were not quite unequivocal. No formation of decidua at all could be detected in eight cases, in four there was merely a patchy appearance of such at the seat of insertion of the ovum, and in six some very slight indications of it in other parts of the tube, but in one instance slight formation of decidua was found both at the seat of insertion of the ovum and outside it, while in another the formation of decidua existed outside the seat of the ovum, and also, but to not the same extent, inside it.

The destructive action of the epithelium of the villi upon the maternal tissues, at the seat of the implantation of the ovum, was well marked. The tubal epithelium at that spot had always entirely disappeared. There was no definite hypertrophy of the musculosa of the tube, but œdematous saturation and cellular infiltration could, in many cases, be traced along the vessels. In twelve instances the ovum had been inserted in the abdominal section of the tube.

Lange has investigated the question of decidua formation in the tube during intrauterine pregnancy also, for which he availed himself of fifty preparations in various stages of gestation and the puerperium up to nine days after delivery. He found the tubes not hypertrophied but very often œdematous; in the stroma of the mucosa and round the vessels there were always numerous leucocytes. Five instances in which there was indubitable decidua formation in the tube prove that contact with the ovum is not an in-

dispensable condition for such formation, provided a fertilised ovum has been implanted in the uterus or tube. The power of the tubal mucosa to form decidua is, however, slight, and, at all events in the earlier months of pregnancy, may be altogether wanting. To what extent a decidua reflexa may be formed in a tubal pregnancy has not been ascertained; in the same sense as in the uterus, it is probably not formed in the tube at all.

Lange's researches confirm those of Schmorl, to the effect that in every uterine pregnancy luxurious decidual proliferation takes place beneath the peritoneum of Douglas' pouch and the neighbouring parts; in one instance he was able to point to such upon the lower loops of the intestines, in another upon multiple small fibromata under the peritoneum of the large omentum.

#### REPEATED TUBAL PREGNANCY IN THE SAME PATIENT.

HEIKEL (*Mittheilungen aus Engström's Klinik*, Bd. iv., Heft 1), to the twenty-nine cases of the above already published from the same source, now adds fifty cases collected from recent literature and two recent ones met with in the clinic. In each of the latter, pluriparous women aged 34 and 35 respectively, tubal pregnancy was diagnosed on two occasions at intervals of about three years, and on each salpingotomy or salpingo-oöphorectomy was performed first on one side and then three years afterwards on the other. The diagnosis was established at the operation; both recovered. Engström does not approve of prophylactic sterilisation, but considers that by restoring as far as possible the normal conditions of the pelvis when removing a pregnant tube, and by careful subsequent treatment, he takes the best course to prevent, though not with absolute certainty, the implantation of an ovum in the tube which remains (*cf.* xvii., p. 90).

#### SIMULTANEOUS EXTRA- AND INTRA-UTERINE PREGNANCY.

VILSIN (*Mittheilungen aus Engström's Klinik*, Bd. iv., Heft 1) includes in the above only cases in which an extra-uterine pregnancy begins at the same time as a normal one, or in which both embryos must be supposed to have been for some time alive together. By researches extending back to the eleventh century the author has collected sixty-eight indisputable cases, and gives also the details of a recent one from Professor Engström's Clinic.

The great rarity of the combination is proved by the small number of published cases compared with the frequency of ordinary twin pregnancies (1 : 89).

In 57·89 per cent. the subjects were between 31 and 40 years of age; the proportion of primiparae to pluriparae was 19:23 (80·77 per cent.).

The most important condition for the occurrence of this anomaly, as for the ordinary binovular twins, is the presence of two ripe Graafian follicles near each other; predisposing factors in this special form of twin pregnancy are previous morbid changes in the generative organs and their results, especially abnormal ovulation.

The resulting troubles are generally the same as in ordinary extrauterine pregnancy, with those of twin pregnancy superadded in the later stages.

In only twenty cases did both embryos reach complete or nearly complete development. In forty-seven the simultaneous development of the two was terminated by the death of one or both foetus.

The premature interruption of the intrauterine pregnancy has apparently much less effect on the extrauterine one than *vice versa*.

The direct influence of extrauterine upon intrauterine pregnancy is shown by the following figures.

The intrauterine foetus was born prematurely in twenty-seven cases (43·54 per cent.) or died on the death of the mother in six (9·67 per cent.); it was mature when born in twenty-nine cases (46·77 per cent.). The commonest cause of the interruption of the intrauterine pregnancy is the disturbance of the circulation in the immediate neighbourhood of the uterus consequent on tubal rupture or abortion.

Though the extrauterine pregnancy was often brought to an end by rupture or abortion, in twenty-five instances (37·31 per cent.) the extrauterine foetus reached maturity. This fact, so remarkable compared with ordinary ectopic gestation, Engström attributes to the more plentiful blood supply brought about by the coexisting intrauterine pregnancy, and the improved nutrition and hyperplasia of the ectopic embryonal sac, more especially of the seat of the placenta.

The diagnosis of the combination must always be difficult, indeed in the first three months is hardly possible, further than intrauterine pregnancy with an adnexal tumour, or extra-uterine pregnancy with consequent enlargement of the womb. Later on it may easily be mistaken for retroflexion of the gravid womb, or for intrauterine pregnancy combined with an ovarian or pelvic tumour, an error that may be made even at full term. The diagnosis is not assured till after the birth of the intrauterine foetus.

The treatment of course coincides with that of the extrauterine pregnancy. Several very interesting operative measures are related, and a comprehensive list of the cognate literature is appended.

WARNEK (*Centralb. f. Gyn.*, 1902, No. 2) reports: A woman of 34, who had had four children and four abortions, and whose last catamenia were more than a year previously, was attacked on October 28, 1900, by severe pain lasting for some days, and on November 3 had hæmorrhage, with pain in her back. Her uterus was enlarged and tender, the external os was slightly dilated, the tubes thickened and painful, and the ovaries swollen. The diagnosis made was: Double salpingo-oöphoritis, chronic metritis and endometritis. Three weeks later she had severe menorrhagia with pains all over her abdomen, and examination showed that the left tube was much enlarged and depressed the posterior vaginal vault, and was very tender. The bleeding persisted for more than a month and was only arrested by hydrastinine. At the end of January the uterus was found soft and much larger, there was a tumour on the right side projecting out of the small pelvis, and extrauterine pregnancy was suspected. In the middle of February she quickened and there was *ballottement* in the anterior vaginal vault. Exploratory laparotomy on March 10 disclosed that there had been a tubal abortion on the left side, and that there was a six months' intrauterine pregnancy. She was delivered of a healthy boy on June 29, at term.

The intrauterine pregnancy had not been disturbed in spite of the tubal abortion, hæmorrhage for six weeks, repeated hot irrigation, 400 grammes of 5 per cent. infusion of ergot, 4 of ergotin, 60 of hydrastis, and 15 of hydrastinine.

HANNA CHRISTER-NILSSON (*Nord. med. Arkiv.*, xxxiv., 2), after reviewing all the published cases, reports the following: A woman of 29, who had had puerperal fever in her previous labours, had for four months shown the symptoms of a fourth pregnancy, and recently had suffered from some abdominal pains and vomiting. By the vagina, a movable tumour as large as the fist could be felt somewhat to the right of the uterus; the posterior vaginal vault offered an ill-defined resistance; the left adnexa were normal. After the patient had been under observation for a week, extra- and intrauterine pregnancy was suspected. Exploratory laparotomy confirmed the diagnosis; the distended right tube formed a cavity 4 cm. long and from 2 to 3 cm. broad; a small fissure near the pavilion was partially closed by

adhesions; the interior of the cavity was filled by a black mass formed of chorionic villi. The diseased right ovary and the appendix adherent to it, were removed together. The size of the uterus was that of a two months' pregnancy. There was no corpus luteum on the right ovary, the ectopic ovum was no doubt furnished by the opposite side on which the adnexa were healthy. The patient made a good recovery, and it was hoped that the uterine pregnancy would proceed to term, but after her return home the patient was not careful and aborted; her description of the ovum suggested a pregnancy of three months.

KOCHANOW, Astrakan (*Centralb. f. Gyn.*, 1902, No. 2), reports: A V.-para of 31, whose labours had been normal, was admitted into hospital January 16, 1901. Two months after her last menses in October, 1900, she suffered from swoonings, general debility, and genital hæmorrhage, and about three weeks before admission she noticed a tumour above the symphysis. After examination a diagnosis was made of tubal pregnancy aborted in the second month, the embryo in the peritoneal cavity. Laparotomy disclosed not only a tubal abortion but also intrauterine pregnancy in the fourth month; both pregnancies were apparently of the same date. The patient aborted of a four months' foetus on the twenty-third day after the operation. She was discharged perfectly well on April 2.

#### TRIPLE ECTOPIC GESTATION.

WILMER KRUSEN communicated to the Philadelphia County Medical Society, October 26, 1901, a remarkable case of ruptured tubal pregnancy with three foetuses in the second month; the only similar case he can find was reported by Säger (*Centralb.*, 1893), and was a twin interstitial pregnancy with a third ovum at the fimbriated end of the same tube, but Krusen's case was a true unilateral triple tubal gestation, the course of the uterus not being involved.

#### THE INFLUENCE OF HEREDITY AND DEGENERATION IN OBSTETRICS.

LARGER, Maisons Lafitte (*Acad. de Méd.*, December 31, 1901), reported the following cases: (1) A young woman, having had one normal labour, was attacked by severe hysterical crises in the second, in which the presentation was a breech one. (2) A woman who had had three perfectly normal labours, conceived for the fourth time during the

siege of Paris. She bore a boy presenting the face with procidence of one arm, and who subsequently showed signs of degeneration. This boy became the father of a child that likewise presented the face with procidence of an arm. According to Larger, these and other similar published cases should modify the mechanical theories generally received in obstetrics, and certainly show the inaccuracy of Pajot's "law of accommodation."

#### STERILITY.

CHROBAK (*Wiener klin. Wchns.*, 1901, No. 51) points out the difficulty that besets the appreciation of sterility, owing to the great gaps still existing in our knowledge of the processes involved in generation. These processes are undoubtedly influenced to a great extent by the general nutrition, to which, in the treatment of barren women, attention must be paid; but the chemical and physical conditions which are also factors in preventing conception are often beyond reach of detection. Absence of sexual feeling in Chrobak's opinion must be considered a functional anomaly indicating irregularity in the physiological processes in the generative organs. He has repeatedly induced an improvement in the deficient sexual feeling by dilating the cervical canal by means of irrigation. The escape of the sperma out of the vagina immediately after coitus, a factor which has not hitherto been sufficiently attended to, should be as far as possible prevented. It is due partly to the relaxation of the vaginal walls, partly to muscular action. Pessary treatment occasionally does good, but the most effective treatment is to perform a suitable plastic operation such as perineorrhaphy and colporrhaphy. In certain cases the escape of the semen is to Chromak an indication for the radical treatment of a backward displacement; in a great number of others, more or less dependent upon it, he has effected a cure by the division of the posterior lip of the os uteri.

#### PREGNANCY AND LARYNGEAL TUBERCULOSIS.

KUTTNER, Berlin (*Ann. Maladies de l'Oreille, &c.*, 1901, No. 11), concludes from the study of twenty-five cases of pregnancy in various stages of laryngeal tuberculosis, that in hopeless cases of this disease so complicated, no local treatment or tracheotomy should be attempted except when the patient's life is in danger from dyspnœa. Even when the general condition is favourable, interference should be avoided as long as the laryngeal lesions are slight (small erosions and



limited ulceration). If infiltration occur or the affection be diffused, tracheotomy should be performed, and should this prove unsuccessful, abortion should be induced. The earlier abortion is brought on in these cases, and the smaller the foetus, the more favourable are the conditions for the subsequent course of the disease. After the seventh month there is a risk of the patient sinking under the exhaustion of delivery. When the laryngeal tuberculosis is in an advanced stage, it is desirable, in order to avoid the danger of sudden asphyxia, to perform tracheotomy before labour, or at all events to have everything ready for the operation.

#### OSTEOMALACIA.

HUEBL (*Centralb. f. Gyn.*, 1901, S. 1351) showed to the Vienna Obstetrical and Gynæcological Society a III.-para with an extremely osteomalacic pelvis; the disease had been cured for two years by regular doses of phosphorus, and without castration; it had appeared in the second pregnancy, which terminated spontaneously in the birth of a small child; the third pregnancy was interrupted. HIS, Dresden (*D. Archiv. f. kl. Med.*, 1901, No. 23), reported that in a case of the disease in a child, during the administration of phosphorus there was a retention of 0.301 grammes of lime in the system per day, at other times it was excreted in excess, while phosphoric acid was retained before, during, and after the administration of the drug. He concludes that, as indeed is now generally accepted, phosphorus favours the deposit of lime salts. HOLLAENDER showed a case successfully treated by castration to the Berlin Medical Society (1901, November 13), the chief interest of which was that the patient was a young maid instead of a childbearing woman.

#### SALINE INJECTIONS IN THE VOMITING OF PREGNANCY.

CONDAMIN, Lyons (*Semaine Méd.*, 1902, No. 3), has treated eight cases of persistent vomiting of pregnancy by the systematic injection, preferentially by the rectum, of from 3 to 4 litres of artificial serum daily, in divided doses of 300 grammes each. The injection is made so slowly as to occupy from ten to fifteen minutes, and is arrested if it induces peristalsis, to be recommenced when the movements have ceased. Should there be intolerance a few drops of laudanum may be added, or if necessary the serum may be introduced hypodermically. During the ten days or so that the treatment is continued, the patient takes neither liquids nor solids by the mouth, and then while the injections are



continued for several days, oral nourishment is gradually increased from a few mouthfuls to the ordinary quantity. This treatment is based on the idea that the persistent vomiting of pregnancy is due to general intoxication, and averted the necessity of inducing abortion in any of the eight cases in which he has adopted it.

#### ECLAMPSIA WITHOUT CONVULSIONS.

SCHMORL, Dresden (*Archiv. f. Gyn.*, Bd. lxx., S. 503), reports: Three women died in deep coma at or after the middle of pregnancy; two of them were suffering from renal disease before conception, but the kidneys of the third were sound up till the onset of her last illness; none of them had convulsions. The *post-mortem* results were practically the same in all, consisting in changes in the kidneys, multiple hæmorrhagic and anæmic necroses of the liver, marked parenchymatous degeneration, and necroses and hæmorrhages in the myocardium, multiple foci of softening and hæmorrhages in the brain, as well as multiple thromboses of the internal viscera. On the basis of seventy-three autopsies after eclampsia, Schmorl says that such pathological lesions are characteristic of that disease, and concludes that it was the cause of death in these women.

#### ON THE RAPID AND COMPLETE DILATATION OF THE OS UTERI BY MEANS OF BOSSI'S DILATOR, ESPECIALLY IN ECLAMPSIA.

LEOPOLD, Dresden (*Centralb. f. Gyn.*, 1902, May 10), having seen Bossi employ his instrument with singular success at Genoa in 1901, reported twelve cases in which he had himself adopted the method, and gave a drawing of the instrument (*Archiv f. Gyn.*, Bd. lxxvi., Hft. 1). Seven of his cases were eclamptic, two very contracted pelves, one advanced phthisis, one severe uterine spasm, and one a labour with high fever. All the mothers and four children were discharged well; eight children, mostly immature (6-8 months) were born dead.

Since making that report, he has used the instrument in five other cases of eclampsia with the same satisfactory results, and reviewing the twelve cases of eclampsia, points out that in all cases, by the use of Bossi's dilator, the os uteri was dilated sufficiently to allow the forceps to be applied to the head of the child in from twenty to thirty minutes; the dilatation was effected in Bossi's way, slowly, and with gentleness and patience, with the result that in not a single

instance was there any laceration worth mentioning; in nearly every case uterine contractions soon commenced during the use of the instrument, and continued regularly and with increasing force into the third stage of labour. The advantages of the instrument in the treatment of eclampsia appear from the facts that all the twelve eclamptic mothers, ten primiparæ and two multiparæ were discharged well; from one to thirteen fits had preceded the dilatation, perhaps even more; the initial size of the os ranged from that of a half-farthing to that of a crown; seven children were extracted alive with forceps, two rather undersized dying within the hour; four children had to be perforated, but all had died either before or during the labour; podalic version of an undersized child was employed in a case complicated by placenta prævia, in order to stop hæmorrhage.

The advantages of Bossi's instrument are self-evident, if one considers the time it gains, for in most of the women the fits ceased or became much less severe as soon as they were delivered, and that every one of them was discharged well, though several had been very ill indeed. Moreover neither labour nor childbed was complicated by hæmorrhage, plugging or the more serious insertion of stitches, and there were no lacerations, and no incisions of the cervix.

Leopold considers that to the practitioner, Bossi's dilator will be most valuable as a means of treating eclampsia, and that, save in exceptional cases, eclampsia can no longer be accepted as an indication for Cæsarean section.

#### DANGERS OF VAGINAL INJECTIONS OF ACETATE OF LEAD DURING PREGNANCY.

PILSKY (*Semaine Médicale*, 1902, p. 8) reports that a woman of 21 was admitted into Mackenrodt's Clinic with urgent symptoms, vomiting, colic, cyanosis, and shortly aborted a foetus of about six months. Her symptoms grew worse (obstinate constipation, colics, hæmatemesis, jaundice, &c.), and she died after five days. Autopsy proved death to be due to acute lead poisoning; there were no signs of infection. About six weeks previously she had been ordered injections of a solution of acetate of lead, twice a day, by a gynæcologist, who told her to return and see him after a few days. This she neglected to do. On the day of her admission she had been seized by violent colic during the injection, perhaps owing to much of the solution, instead of flowing out immediately, having remained in the vagina till the injection was finished.

## PREGNANCY IN DOUBLE UTERI.

NOVICOV (*J. akouch. i. jensk. boliezn.*, 1901, September) relates the following cases: (1) A multipara of 34, immediately after a miscarriage, noticed in the left side of her abdomen a tumour which was movable, but always fell back into its old position, and a midwife, consulted a fortnight later, diagnosed a pregnancy of seven months; two months afterwards she bore a healthy and fully developed child. (2) A multipara of 40 was delivered spontaneously of a living child at term, followed by an entire ovum containing a foetus of three months, and then by a normally developed placenta. (3) A woman, who three years previously had had a child at full term but still-born, and forty-seven days later another, also at term and which survived, consulted Novicov about a month after bearing a child which had lived for nine days. She complained of weight in the hypogastrium, with pains, and of pruritus of the external genitals. On examination he found large prominent folds inserted on the median line of the anterior and posterior walls of the vagina for the whole of its lower third. These folds were evidently the remains of a vaginal septum which had been ruptured in labour. On a single cervix there were the orifices of two cervical canals, from one of which blood was flowing, while from the other, slightly ulcerated, there was a purulent discharge. On bimanual examination, he found in the right side of the pelvis the body of a uterus of the size of a three months' pregnancy, which could be moved into the middle line, but fell back to the right directly it was set free; there was another corpus uteri at the left side of normal size. The separation of these two bodies commenced at an acute angle at the cervix, which was common to both. He diagnosed subinvolution of the right uterus and cervical endometritis of the left.

These cases show that a woman may bear a child within a short time after a previous confinement or abortion, and that if so, there is reason to suppose the existence of a double uterus; this supposition, verified in the last case, seems to be the only plausible explanation of the other two. Novicov supposes that if at the time of the first labour, the pregnancy in the second uterus is well advanced and the placenta already formed, the second pregnancy may proceed to term, but that otherwise it will be interrupted.

## CURETTAGE AFTER ABORTION.

SCHAEFFER (*Deutsche Praxis*, 1901, Nos. 1-3 and 5-8) gives the results of 207 cases treated by himself, which are

greatly in favour of the use of the curette. Sequelæ were met with in only 34·4 per cent. of the cases in which this instrument was used to clear out the uterus, compared with 92·4 in those in which it was not employed. In the former, the menses were regularly re-established on 60 per cent, pregnancy to term supervened in 53 per cent., abortion recurred in only 13 per cent., sterility prevailed in 32·3 per cent. When the curette was not used the figures were, regular menstruation in 39·4 per cent., pregnancy to term also in 39·4, repeated abortion in 47·3, and sterility in 25·1. These results are the more remarkable as the cases were all treated upon the same general principles, and in no case was the curette employed without the strongest indications.

#### THE INDUCTION OF LABOUR BY INTRACERVICAL GALVANISATION.

MIRONOV, Kharkov (*Semaine Médicale*, 1902, p. 58), in treating uterine affections by the constant current after Apostoli's method, noticed that at the time of the introduction of the electrode into the neck of the uterus and a little beyond the inner os, the uterine contractions were much more energetic than while the electrode was in the cavity itself. This fact in connection with the anatomical disposition of the nerves round the inner os, induced him to employ the bipolar intrauterine electrode of Apostoli to induce premature labour in the following way: After disinfection of the external genitals and vagina, the portio is exposed by a speculum and wiped with a plug of cotton wool soaked with antiseptic solution, and the mucus completely removed from the os tinçæ; the bipolar electrode is then passed up the cervical canal until the lower border of the second platinum ring remains just visible at the external os, the current is then applied of 50, 75, or even 100 milliampères for as long as fifteen minutes, and after a second toilet the patient goes about as usual; the sittings are repeated daily. Of three women so treated, two were delivered after three sittings; in the third the uterine contractions were extremely weak (her previous normal labour had lasted four days), and after eight sittings in the course of four days, as she was completely insensible to 150 milliampères, the intensity was pushed as far as 200; nevertheless in none of the three was there any unpleasant symptom. The pulse varied from 76 to 86 during the sittings and the temperature never rose above 37·3°.

The method is absolutely unobjectionable as regards asepsis.

and as the electrode is not passed beyond the lower segment of the uterus, there is no fear of its directly detaching the membranes, as the sound may do in Kraus' method; moreover, so micro-organisms that the electrode might accidentally introduce would resist the action of the electric current. The process of natural labour is imitated by the induction of the uterine contractions, and by the preservation of the membranes intact. This method seems also preferable to the injection of glycerine between the ovum and the inner surface of the uterus, which has in certain cases been followed by more or less grave symptoms of nephritis and hepatitis from intoxication (Pfannenstiel, Theilhaber, &c.).

#### LABOUR COMPLICATED BY HYDATID CYSTS.

FRANTA, Prague (*Ann. Gyn. Obst.*, 1902, March), has collected thirty-seven cases of labour complicated by the presence of hydatid cysts; in twenty-two there were pathological symptoms mostly of a severe nature, in six no such symptoms, and in nine the condition of the patient in this respect is not mentioned. Suppuration of the cyst was of frequent occurrence and was generally due to outside infection, as from tapping, but sometimes, perhaps, to puerperal sepsis. In three instances the cavity of the cyst communicated with that of the uterus, in one with the bladder, and once, seven months after the labour, an hydatid membrane was expelled from the rectum. Out of thirty-three cases of which the results are recorded, ten died; one undelivered, five from infection, three of rupture of the uterus, and one from a strangulated cæcum. Seven of these ten were primiparæ. The high mortality of these cases has been attributed by Bar and Dambrin to the majority having occurred before the days of antiseptic surgery, but Franta finds that of eight cases during that period only two died, whereas among twenty-five occurring later there were eight deaths, a mortality of 32 per cent. compared with 25 per cent. in the earlier period. When the dystocia was due to the presence of multiple cysts, the mortality was 50 per cent., but when they were solitary it was about 15·8 per cent.

P. Z. H.

#### RUPTURE OF THE SYMPHYSIS IN LABOUR.

PEHAM reported to the Vienna Obstetrical Society (*Centralb. f. Gyn.*, 1901, S. 1,345) the following case: A VIII.-para, with a justo minor pelvis, was delivered, by Veit's grip, of a dead child after version. While hot water irrigation was

being applied for slight hæmorrhage, her leg was abducted by an assistant, a loud crack was heard and her symphysis separated to four finger-breadths. It was found that the left sacro-iliac articulation had also been torn. The woman some years previously had had severe rheumatism, which for three weeks had prevented the abduction of her lower limbs.

HUEBL related a similar case from Braun's Clinic, a separation of from two to three finger-breadths successfully treated by sand bags without any binder. HINK another during the application of the high forceps; there was a loud crack; it was treated by sand bags.

#### EMBRYOTOMY.

KOSSMANN, in a discussion at the Berlin Medical Society (*Berliner k. Wchns.*, 1902, No. 6, *et seq.*), after an exposition of historical facts bearing upon the murder of the foetus, pointed out that nothing in German law rendered the therapeutic interruption of pregnancy an exception, and proceeded to examine the question as to the indications which demanded such intervention on the part of a conscientious operator.

Induced abortion was not, in his opinion, justifiable unless one was convinced that the foetus ought to die before term, because the prolongation of the pregnancy would be fatal to the mother. The question of embryotomy during labour was more difficult; the instances in which the child's life cannot be saved except by the sacrifice of the mother's, are altogether exceptional, and are only those in which, with a shoulder or brow presentation, symptoms of septicæmia are already present. The difficulty that most commonly presents itself is whether one should expose the mother to the risks of a serious operation in the hope of saving the child, or should sacrifice that hope in the interest of the mother. In solving this difficulty Kossmann thinks account should be taken of the relative value of the maternal and foetal existence.

Statistics show that the chances of life of a newborn infant are the same as those of a woman of 23 years old. The argument that the woman may have other children cannot carry much weight, for the causes of dystocia already present will, in any future labour, be possibly increased by those due to such grave intervention as embryotomy. The state of health of the mother and of the child must also be considered: there is a wide difference between a healthy child and one tainted by syphilis, between a sound woman and one with an inoperable carcinoma. The mother or her legal representatives has an undoubted right to demand hysterectomy.

but no one can insist upon embryotomy if the doctor thinks it to be contra-indicated. Kossmann pointed out that the maternal mortality after embryotomy is almost as great as after Cæsarean section; and expressed the hope that the results of the latter would one day permit us to resort to it in every case such as now may have to be dealt with by embryotomy.

DUEHRSEN said that to escape all legal liability one should never interrupt pregnancy at all. As regards hysterectomy, it would be wrong to compare the results given by that operation in a well equipped hospital with those that might be obtained by a country practitioner without any proper means at hand.

WOLFF declared that the doctor ought to care for the lives of the mother and child equally, but when the prolongation of pregnancy imperilled the life of her whose existence as wife and mother was of greater social importance, that life should be the first consideration. In regard to Kossmann's statement that Cæsarean section was hardly more dangerous for the mother than embryotomy, he pointed out that in Gusserow's Clinic, in forty-seven embryotomies only three mothers had been lost, and all of them were already seriously infected, one after rupture of the uterus. Cæsarean section would certainly show a greater mortality performed under the same circumstances, even if it were not too late to undertake it at all.

LANDAU held that in hyperemesis leading to pernicious anæmia, in some affections of the heart and cases of mental disease, and in certain cases of phthisis, the foetal life was not to be considered, but that in advanced cases of phthisis chronic parenchymatous nephritis and diabetes, which had even before conception resisted treatment, however distressing it may be to do so, we should endeavour to preserve the pregnancy long enough to save the child's life, even at the cost of the mother's.

KAMINER took Kossmann to insist that there should be no foetocide unless the obstetrician was certain that the mother (and with her the child) would die undelivered.

KOSSMANN, in reply, combated the statements of Freund and Wolff as to the slight danger of craniotomy for the mother, and insisted upon the divergence of the views held by the profession upon interrupting pregnancy, some thinking it right to induce abortion in the phthisical, like Maragliano, or in the alienated, like Jolly; others, like Pinard, holding that in every case the infant's life should be protected.



Legally, craniotomy was never justifiable while there was any other means of saving the mother's life.

#### CÆSAREAN SECTION.

Papers read at a Meeting of the Gynæcological Section of the College of Physicians, Philadelphia (*Amer. Journ. Obst.*, February, 1902).

Dr. E. P. DAVIS reported 6 cases, the indications for the operation were as follows:—

(1) Slightly contracted pelvis and head impacted in the brim. At the patient's request further conception was rendered impossible by hysterectomy. Mother and child both well.

(2) Marked scoliosis of the vertebræ in the lower dorsal and upper lumbar regions in a dwarf. When labour came on the head lay across the pelvic brim, with a hand and arm alongside it. In spite of strong pains the head would not engage. Hysterectomy was performed to prevent further conception. Mother and child both well. In each of these cases there had been a previous confinement, long and difficult, with delivery by forceps.

(3) Six of the children had perished at birth from dyscopia in previous confinements. In the present labour forceps had been used unavailingly, in spite of deep anæsthesia, and on admission to the Maternity the patient was in a condition of profound shock. The cervix was found dilated and a large head wedged into the brim of the pelvis; the child was dead. Craniotomy was performed but as the foetus could not be extracted, a Porro operation was done without delay. The patient rallied slowly and recovered.

(4) Oblique contraction of the pelvis in a primipara, the result of double hip joint disease and rachitis in childhood. When labour came on hysterectomy was performed, after the child had been removed, so as to prevent further conception. Mother and child did well.

(5) General dropsy, accentuation of second sound of the heart and increase of arterial tension. Sight dim due to serous swelling of the retina, albumin in urine in abundance, in a primipara, between seven and eight months pregnant, who in childhood had had scarlet fever, and repeatedly uric acid in large quantities in her urine. Labour was induced by dilating the cervix under chlorform and passing bougies. A few hours later eclampsia supervened. Condition very grave. Cæsarean section rapidly performed. She rallied from the operation, but in a few hours coma came on and ended fatally. The child died.



(6) Melancholia in a primipara in the later months of pregnancy. Slight contraction of the brim of the pelvis. Breech presentation, but owing to feeble pains the breech did not descend. The child was a large one and there was lack of expulsive effort on the part of the mother. Cæsarean section; child alive. The mental condition of the mother gradually improved after the operation. In this case the operation was done more to save the life of the child than of the mother.

Dr. STRICKER COLE's three cases as follows:—

(1) Primipara. In labour for some time before admission; the os was found dilated and the membranes ruptured, but the head could not be made to engage in the brim. After delivery of the child by Cæsarean section, hysterectomy was done at the patient's request to prevent further conception. Mother and child did well.

(2) Primipara, in a similar condition on admission; the head would not engage and there was slight contraction of the pelvis. The uterus was not removed. Mother and child both well.

(3) Multipara; five children. Her first two labours were normal, but very difficult; in her last labour, three years ago, a dead child was delivered by forceps. After a miscarriage eighteen months ago she was ill in bed and had a "tumour" on the right side of the uterus, which she was advised to have removed. Some time after admission to the Maternity, labour came on; ten hours later the head was still above the brim, the os being fully dilated. Forceps were applied, but the head could not be made to engage. The child was delivered by Cæsarean section and a pyosalpinx then removed, which had an opening into the bowel. Mother and child both well.

Dr. R. C. NORRIS also reported a Cæsarean section for contracted pelvis. Both mother and child doing well.

Dr. G. M. BOYD said that in placenta prævia with central implantation when the hæmorrhage has been slight, Cæsarean section will give the best results, but such cases are very infrequent. His own case of coeliohysterotomy had done as well as those of coeliohysterectomy.

Dr. C. P. NOBLE said he was in sympathy with the present tendency to broaden the basis of the operation. In placenta prævia his experience with the older methods of treatment had been very satisfactory. He did not think hysterectomy should be done unless absolutely necessary, and certainly not because the patient did not wish to have any more children.

Dr. REYNOLDS WILSON did not think that a conjugate diameter of eight centimetres warranted an elective operation.

Dr. BALDY thought that Cæsarean section was done too often, few of the cases reported, with a conjugate diameter of eight centimetres, ought to have required it. On the other hand if Cæsarean section were absolutely necessary, the woman ought not to be left liable to a recurrence of the trouble. The operation should not be done in cases of eclampsia.

#### THE SIGNIFICANCE OF FEVER DURING THE PUERPERIUM.

MORAN (*Amer. Journ. Obst.*, February, 1902) reports: At the Columbia Hospital, Washington, the maximum limit, for normal cases of labour, is placed at  $100^{\circ}$ , and a series of observations have been made on the relative morbidity of cases examined and not examined internally, and with and without rubber gloves. No prophylactic douches were used. From July 1, 1899, to September 30, 1900, 318 cases were treated; 233 primiparæ and 85 multiparæ; 180 cases were and 138 cases were not examined during or after labour; of the former 40, or 22 per cent., had a rise of temperature above  $100^{\circ}$ ; of those not examined 26, or 19 per cent. From October 1, 1900, to May 30, 1901, rubber gloves were used in 237 cases; 197 cases were examined and 40 were not examined. Of those examined 43, or 20·7 per cent., had a rise of temperature above  $100^{\circ}$ . Of those not examined 7, or 17·5 per cent.

Bacteriological and microscopic examination in the above cases proved that a number of general diseases as well as septic infection of the genital tract are factors in the morbidity. In cases not examined, the morbidity from infection is only one half of that of cases examined and is even less when rubber gloves are used. Distinctly preventable septic diseases account for the fever in only 10 per cent. of the cases. Gonorrhœa is not an infrequent complication; it may remain latent or become aroused to activity by injudicious local treatment. Like unmixed staphylococcus infection it tends to run a mild course. The colon bacillus, however, like the streptococcus, may become very virulent, especially if associated with other pathogenic organisms. There were 15 cases of mastitis, mostly after still-birth, and due to over-secretion and engorgement. There were typhoid cases, which it was found had begun a week before labour; malarial cases, which responded promptly to quinine, and two cases of pneumonia, one of septic origin. Constipation was found to

be a common cause of rise of temperature. The morbidity, since it is so high in cases examined, compared with that in cases not examined, may evidently be reduced by strict attention to an aseptic technique, and by cultivating external diagnosis and avoiding internal examinations.

J. F. J.

#### SLOW RECTAL INJECTIONS OF WEAK SALINE SOLUTION IN SEPTIC INFECTIONS.

VERNITZ, Odessa (*Semaine Médicale*, 1902, p. 56), dissatisfied with the effects in septic infection of subcutaneous, intravenous, and rectal injections of salt solution, administered in the ordinary way, and believing that in view of the cardiac weakness in such cases it would be better neither to introduce into the system too large quantities of fluid at one time, nor to push the injection too rapidly, has tried a method of rectal injection recommended by Hegar, which is as follows: The canula introduced into the rectum is supplied by a receptacle filled with the fluid to be injected, and this fluid is allowed to flow into the bowel very slowly under very slight pressure until the patient is sensible of a certain amount of tension; the receptacle is then lowered so as to cause part of the injected fluid to flow back into it; this process is repeated, the liquid being changed after a time if it is soiled by faecal matter. As soon as the rectum has been sufficiently cleansed, absorption by the mucosa commences to the extent of 500 to 1,000 ccms. an hour; this is soon followed by more or less profuse diuresis, the relief of the thirst and parched mucous membranes, and by abundant perspiration which, unlike many critical sweats, is not accompanied by collapse or any distressing symptom, even though the temperature sinks to normal. As soon as the thermometer shows a rise, the injection is repeated in the same way as before. Vernitz employs a 0·5 or 1 per cent. solution of chloride of sodium, and has obtained excellent results in three cases of abortion with septic infection and very grave systemic symptoms, in one case of acute septicæmia following a normal labour, and in a case of acute peritonitis due to an old salpingitis; he suggests that this method would be beneficial in eclampsia, which is now considered to be an acute systemic intoxication.

## NOTES.

WE have to record, with great regret, the death, on March 11, of Professor JOHANN LAZAREWITCH, whose name stands among the first on the roll of our Honorary Fellows. Born in 1829, he studied at Kief, qualified as *Privat-Dozent* in 1857, and in 1862 was appointed Professor of Midwifery and the Diseases of Women and Children at Charkof, where he was also Director of the Frauenklinik. From the translations of his works into English, French, and Dutch, he was almost the best known of the distinguished obstetricians of Russia.

By the death, on February 7, from heart disease, at the comparatively early age of 55, of Emeritus Professor PAUL FORTUNATUS MUNDE, a Fellow of our Society since 1885, and Vice-President 1886-87, we have lost a colleague whose eminence as a teacher, and wide repute as a skilled consultant and wise and conservative operator, were hardly more remarkable than the singular ability with which he edited the *American Journal of Obstetrics*, from 1874 to 1892; the subscribers to that Journal, while it was under his care, increasing from 400 to more than 5,000. Born in Dresden, he emigrated at a very early age with his parents to Massachusetts; he served as a medical cadet in the Federal Army in 1864, and after graduating with high honours at Harvard in 1866, went to Germany, was a volunteer surgeon in the Austro-Prussian war, and obtained the Medal of Honour for distinguished service in the field. In 1867 he became resident physician in the Maternity Hospital at Würzburg, and assistant to Scanzoni. In the Franco-Prussian War he was a battalion surgeon, and for heroically rescuing the wounded from a burning field hospital was decorated by the Emperor with the Iron Cross. After the war he took the degree of Master of Obstetrics at Vienna, and after further study in the European schools, returned to America and settled in New York in 1873. In 1897 he received the degree of LL.D. from Dartmouth, where he had been Professor of Gynæcology since 1880; he also lectured at the

New York Polyclinic. He was President of the New York Obstetrical Society from 1886 to 1888, and was one of the most active Founders, Secretary, and afterwards President, of the American Gynæcological Society. He was an Honorary, or Corresponding, Fellow of the Obstetrical Societies of Edinburgh, Philadelphia, and Leipsic; the author of a valuable work on "Minor Surgical Gynæcology," and, in conjunction with Dr. Gaillard Thomas, of a very thorough revision of Thomas' "Diseases of Women." A very sympathetic appreciation of his life and work, with an excellent portrait, appears in the *American Journal of Obstetrics* for April.

DR. THOMAS MORE MADDEN, M.D., M.R.C.P.I., F.R.C.S. Edin., Gynæcologist to the Mater Misericordiæ Hospital, who died on April 14, was formerly Assistant Master of the Rotunda Hospital, and was one of the Honorary Presidents of the first International Congress of Obstetrics and Gynæcology at Brussels in 1872. He was a Foundation Fellow of the British Gynæcological Society, and a Vice-President in 1885.

AMONG other deaths in the Medical Profession we notice those of the following:—

Dr. E. A. TUCKER, Physician of the Sloane Maternity Hospital, New York, and a member of the New York Academy of Medicine, at the age of 41, on March 3; Dr. GEORGE W. CUSHING, of Brooklyn, Lecturer on Gynæcology at Long Island College Hospital, aged 53; Dr. CROUZAT, Professor of Clinical Obstetrics in the Medical Faculty of Toulouse; Dr. HEINRICH LAHS, Extraordinary Professor of Gynæcology in the Medical Faculty of Marbourg, aged 65; Dr. WOŚSKRESSENSKI, *Privat-Dozent* of Obstetrics and Gynæcology in the Medical Faculty of Kief.

DR. S. H. MACCULLOCH and Dr. FOURNESS BARRINGTON have been appointed Examiners respectively in Midwifery and Gynæcology in the Faculty of Medicine of Sydney University.

AT Newcastle-on-Tyne, Dr. T. OLIVER and Mr. PAGE have been appointed Consulting Physician and Consulting Surgeon to the Hospital for Diseases of Women, the honorary active staff of which now consists of Dr. H. S. BAUMGAERTNER, Dr. W. DURANT, and Dr. LIONEL CALTHORPE. The new wing of the Lying-in Hospital, erected as a memorial of the late Dr. T. C. Nesham, and the wards

closed for repairs and decorations, are to be ready very shortly for patients. Two senior medical students are to reside in the Hospital.

AMONG recent nominations as *Privat-Docenten* of Gynæcology and Obstetrics we notice the following:—

Dr. ERICH OPITZ, Assistant in Olshausen's Clinic, Berlin; Dr. LORENZO D'ERCHIA, at Genoa; Dr. PASQUALE SFAMENI, at Pisa; Dr. WENZEL PITHA, at Prague.

PROFESSOR LEOPOLD LANDAU has been appointed an Extraordinary Professor in the Medical Faculty of Berlin University.

*Privat-Docent* DR. HUGO SELLHEIM has been appointed Extraordinary Professor of Obstetrics and Gynæcology at Fribourg.

DR. A. CAPALDI has been appointed Professor of Gynæcology in the Faculty of Medicine at Naples.

DR. WILHELM MASSEN has been appointed Professor of Obstetrics and Gynæcology at Odessa.

*Privat-Docent* Dr. BETTINO POZZOLI has been appointed Director of the Obstetrical and Gynæcological Section of the Civil Hospital at Voghera.

DR. ROMULO COSTA has been appointed Assistant at the Obstetrical and Gynæcological Clinic of the University at Messina.

PROFESSOR OLSHAUSEN, of Berlin, has received the Second Class of the Order of the Red Eagle, with Oak Leaves.

PROFESSORS FRITSCH, of Bonn, and B. FRAENKEL, of Berlin, have received the Second Class Order of the Crown.

DR. JOSEPH AMANN, Extraordinary Professor of the Diseases of Women at Munich, celebrated his seventieth birthday on March 13.

PROFESSOR JOHANNES PFANNENSTIEL, Senior Physician of the Gynæcological Section of the Elizabethherinnen Hospital at Breslau, has accepted the position of Professor of Obstetrics and Gynæcology, and Director of the University Frauenklinik at Giessen.

DR. HERMANN BIERMER, of Madgeburg, has been appointed to succeed Professor Pfannenstiel as Senior Physician to the Elizabethherinnen Hospital at Breslau.

AT the close of this winter session Professor WINTER-NITZ is resigning his position at the Tübingen Frauenklinik, and will reside in Stuttgart.

THE American Association of Urologists, which was organised on February 22, 1902, to further the study of the urinary organs and their diseases, is in a great measure modelled upon the plan of the Société Française d'Urologie. The founders of the Association are not limited to those engaged exclusively in this specialty, but include gynæcologists who embrace renal and vesical surgery in their work. Whenever possible, the branch associations throughout the United States, and British and Spanish possessions in America, will hold their meetings on the same evenings as the parent Association in New York (the first Wednesday in each month). The annual meeting will be held on the last day of the annual meeting of the American Medical Association and on the day following. The officers of the Association are: RAMON GUITERAS, M.D., President; WM. K. OTIS, M.D., Vice-President; JOHN VAN DER POEL, M.D., Treasurer; FERD. C. VALENTINE, M.D., Secretary; A. D. MABIE, M.D., Assistant Secretary.

THE Benevolent Society of New South Wales, whose Maternity Department in their Asylum was, till comparatively recently, the only training school for medical students and nurses in practical midwifery, have purchased a suitable site of  $5\frac{1}{2}$  acres, and propose erecting a new hospital of 200 beds, of which 100 will probably be allotted to diseases of women.

INTERNATIONAL CONGRESS OF GYNÆCOLOGY AND OBSTÉTRICS.—At the meeting at Rome, September 15 to 21 of this year, it has been arranged that the reporters on the subjects selected for discussion shall be as follows:—

“On the Indications for Interrupting Gestation”: Drs. BARTON COOKE HIRST (Philadelphia), HOFMEIER (Würzburg), PINARD (Paris), REIN (St. Petersburg), SCHAUTA (Vienna), and SIMPSON (Edinburgh).

“On Hysterectomy in Puerperal Infection”: Drs. FEHLING (Strasburg), LEOPOLD (Dresden), TREUB (Amsterdam), and TUFFIER (Paris).

“Genital Tuberculosis”: Drs. MARTIN (Greifswald), and VEIT (Leyden).

“On the Surgical Treatment of Cancer of the Uterus”: Drs. CULLEN (Baltimore), FREUND (Berlin), JONNESCO



(Bucharest), POZZI (Paris), WERTHEIM (Vienna), PAWLIK, CHROBAK, JACOBS, KUFFERATH, BUDIN, and LEFOUR.

Drs. BAR, ZWEIFEL, v. WINCKEL, GUSSELOW, GOW, BRANDT, GUTIERRAS, ROURA BARRIOS, ENGELMANN, MASSEN, MIINLIEFF, NIJHOFF, BAYER, PROCHOWNIK, SCHMIDT WESTPHAL, HAHN, AMANN, PFANNENSTIEL, GEBHARDT, KUSTNER, MURPHY, and REED, will also take part in the proceedings.

THE Seventy-fourth Congress of the German Society of Naturalists and Physicians will meet in Carlsbad from September 21 to 27, 1902. A Section has been added for the History of Medicine, making twenty-eight sections in all, of which seventeen are concerned with branches of Medical Science. The section of Obstetrics and Gynæcology is under the management of Drs. MUNCK and FISCHER, of Carlsbad, and *Privat-Docenten* Drs. KNAPP and KLEINHANS, of Prague, the Secretaries being Drs. SCHALLER and KOHN, of Carlsbad, who have sent a circular letter inviting the Fellows of our Society to assist in the Proceedings of the Section. Communications should be forwarded without delay to Dr. Heinrich Munck, Haus "Billroth," Carlsbad. Applications for rooms at moderate prices to the Stadtrath, Carlsbad (Wohnungsausschuss). Further details and a preliminary programme are promised in June. The subjects announced for discussion in the combined sittings of the two divisions of the Congress are: "The Circulation of Nitrogenous Vapour," and "Physiological Albuminuria."

IN the Urban Lying-in Home, according to the report of Drs. Heidemann and Ruge, during the year ending March 31, 1901, 444 women were delivered without a death, there were 9 abortions, of 435 children 19 were born dead, 4 died within a few days; 19 (4 dead) were delivered with forceps, 15 by version and extraction (1 dead), 3 breech cases were extracted by Veit's grip, there was one kраниoklasy, 1 perforation of the after-coming head, 2 induced abortions for heart disease. The morbidity was 7.53 per cent., but of the 59 women in whom the temperature rose to 38.2° 4 were fevered on admission. There were 22 perineal lacerations.



## SUMMARY OF GYNÆCOLOGY, INCLUDING OBSTETRICS, AUGUST, 1902.

### GYNÆCOLOGY IN LUNATIC ASYLUMS.

B. S. SCHULTZE, Jena (*Monats. f. Geb. u. Gyn.*, 1902, Bd. xv., S. 383), draws attention to the article by Hobbs, "On the Distinctive Effects of Pelvic Lesions upon Mental Disturbance," of which an abstract was given in our last number (*Summary*, p. 1). Schultze has repeatedly advocated the application of gynæcological diagnosis to all female insane persons, and as long ago as 1880 wrote in the *Wiener medicinische Blaetter* to the following effect:—

"As far as I know, no statistics are available as to the number of the female insane who have disease of the genital organs. The causal relationship between coexisting mental and genital disease naturally is not always the same; in many instances the combination is quite accidental, in others both are due to one common cause; in others, again, the general disturbance in the nutrition of the system may induce disease of the genital organs; but in many cases the genital disease is the direct cause of the psychical disturbance, and the recognition of these cases is scientifically and practically alike important. This end can often be attained from the anamnesis and observation, but far more satisfactory conclusions are to be expected from the results of gynæcological treatment of those insane whose genital organs are diseased. Gynæcologists seldom have the opportunity of treating women with serious mental affections, but in those rare instances the success of such treatment is often marvellous; on the other hand, under the numerous "nervous" manifestations of disease, they meet with these slighter forms of psychical disorders, the transition from which to the more serious is known to be very common. The genital lesions in association with which these slight degrees of mental trouble come under our notice are chronic ovaritis, much more frequently displacements, especially retroflexion, of the uterus, old perineal lacerations, and, most of all, chronic endometritis.

Time after time one is surprised to find how soon, and often how suddenly, the physical affection disappears as soon as suitable treatment is given to the genital disease, and the retroflected uterus restored to its proper position, or, by dilatation and irrigation, the stagnant catarrhal secretion is allowed to discharge freely. The results are so remarkable that one is compelled in these cases to accept the psychic affection as a direct symptom of the uterine disease; any recrudescence of the uterine trouble is immediately followed by nervous and psychical symptoms, while permanent relief of the uterine affection often definitely banishes psychical disorders that have existed for years. It seems natural to conclude that the relation of the psychical disease to some existing genital affection should be just the same in many serious cases, the nature of which prevents the patient being at liberty and so consulting a gynæcologist; and were it in my power, I would make it a law that in every institution, public or private, for the treatment of mental or even nervous affections in women, one of the assistant medical officers should be an expert gynæcologist. I do not mean thereby that he should merely have skill enough to introduce a speculum; to apply a caustic to the portio vaginalis and perhaps insert a pessary; nor yet that he must be so practised as to be able himself to perform ovariectomy, plastic repair of the perineum, or other important operations. The essential aim is that no gynæcological indication in a mentally afflicted woman should be out of the range of the observation of, and examination by, a physician sufficiently a specialist to make a gynæcological diagnosis; so that no uterine catarrh, no chronic oöphoritis, no retroflexion, no old perineal laceration, no cicatrix of ancient parametritis, could possibly escape detection in any institution for lunatic women. From the knowledge thus gained the necessity of intervention in all suitable cases would be self evident; and the systematic treatment of gynæcological affections in mentally afflicted women would soon win its own adoption by its beneficial effects upon the course of mental disease."

#### KRAUROSIS VULVÆ.

ROSENSTEIN, Koenigsberg (*Monats. f. Geb. u. Gyn.* Bd. xv., Hft. 2), met with an instance of this disease in a maiden of 18; it had commenced in her sixth year. Excision of the diseased parts was successful. Microscopical examina-

tion showed that there is in this affection a chronic inflammatory oedema of the whole skin and subcutaneous connective tissue, pronounced cornification of many layers of epithelium, and an atrophic loss of the mucous layer of the epidermis, of the papillary bodies, and of the elastic fibres in the papillary layer of the corium.

### VAGINAL CYSTS.

MARION (*Gaz. des Hôp.*, 1902, February 1) classifies vaginal cysts as (1) hydatid (very rare); (2) traumatic, generally after operation or delivery by forceps; and (3) non-parasitic cysts of spontaneous origin. These latter are not very uncommon; they are met with at all ages, even in the new-born, and in every part of the vagina, even in the hymen; generally isolated, they are occasionally multiple and up to a score in number. In shape and size they vary greatly; sometimes lying superficially in the mucosa, they are more frequently more deeply situated in the muscularis; they have generally a proper capsule. Vaginal cysts may extend into the broad ligaments and become isolated there. Their contents are fluid, clear, but sometimes thready, gelatinous, brownish, or sanguineous, and occasionally purulent.

The capsule of these cysts consists of a layer of connective tissue lined with epithelium, sometimes squamous, sometimes cylindrical, but occasionally altogether wanting, and their pathogenesis is therefore by no means constant. Some arise from glands which are to be met with from time to time in the vaginal mucosa (from Wolff's or Mueller's ducts); some may perhaps be accepted as serous cysts (hygromata). Such as lie in the lateral parts of the anterior wall are derived from Gaertner's ducts (Wollfian bodies), and are frequently elongated; while those situated in the posterior wall near the collum, are likewise occasionally of congenital origin and derived from Mueller's ducts.

Vaginal cysts may lead to prolapse or other deviations of the uterus, metritis, and sterility; or in rare cases may cause an obstruction to labour, which can, however, be remedied by puncture. The growth of these cysts is very slow but, as the result of trauma or labour, very sudden enlargement may occur from hæmorrhage. Moreover, cysts may suppurate and turn into fistulæ. As regards diagnosis, vaginal cysts may be taken for solid tumours—fibroma, fibrosarcoma, or fibromyoma—of the vagina itself or outside. Puncture will decide the question. A cyst of the ante

wall may be mistaken for urethrocele or cystocele; one in the posterior wall for a rectocele. A vaginal thrombus, or hæmatocolpos lateralis (double genital canal with atresia on one side), might also lead to an error. In the differentiation of cysts deeply situated, cystic ovaries in Douglas' pouch, hydrosalpinx, cysts of the broad ligament, and even anterior or posterior vaginal hernia, have to be considered. When suppuration has taken place there may be some difficulty in distinguishing a vaginal cyst from a phlegmon of the broad ligament, a perisalpingitis, or perimetritis.

In treatment, puncture, even when combined with injection, is useless. Incision, with tamponade and cauterisation or stitching the capsule to the mucosa, is necessary, or total extirpation, to facilitate which the cyst may be evacuated and then filled with paraffin in Dorn's way. Incision of a suppurated cyst will, however, generally suffice, for as a rule the capsule soon perishes. When a fistula has formed the incision should be free and followed by tamponade.

#### RECURRING PAPILLOMA OF THE VAGINA.

WALTER (*N. of E. Obstetrical and Gynæcological Society*, 1902, January 15) reports a case of the above; the tissue removed at the first operation exhibited no signs of malignity, but numerous nests of cells were found in the fibro-elastic tissue removed on a later occasion.

#### SARCOMA OF THE FEMALE URETHRA.

FLATAU (*Nürnberg Med. Soc.*, May 1, 1902) exhibited a primary sarcoma of the urethra with metastases from the inguinal glands on both sides, removed from a nonipara of 44. Singularly enough it was the inguinal metastases, simulating herniæ, which troubled the woman and led her to seek medical advice; the primary tumour of the urethra giving so little trouble that the patient did not notice it till directly questioned with an earnest request for an examination. The tumour proved to be a periurethral sarcoma which, originating in the muscular tissue of the canal, had grown completely round it. Profuse hæmorrhage obscured the field of operation, so that it was impossible to find the urethral opening. The left glandular tumour was larger than a goose egg, and adherent to the large vessels, was not enucleated without difficulty; the right was the size of a walnut. Both metastases were softened and necrotic in their centres, and the

primary growth was ulcerated and decayed on the surface round the meatus. As the operation was long and bloody, no attempt was made to form an artificial urethra; but a small vesico-vaginal fistula was made as far forward in the neck of the bladder as possible, and was distorted into the muscular tissue of the sphincter of the introitus, in the hope that, perhaps, by the implantation of some sphincter material, some sort of control might be obtained. The results were better than had been hoped; when the vagina was well plugged with iodoform gauze the patient was able to retain her water for four hours and even without plugging (that is, compression of the neck of the bladder which had been dragged forwards into a conical shape) for nearly one hour. The woman is now provided with a caoutchouc colpeurynter, the effect of which is so satisfactory that Flatau has postponed any attempts to make, as he had intended, an oblique fistula in Witzel's way after a *sectio alta*.

#### CYSTOSCOPY IN WOMEN.

BIERHOF (*Med. News*, 1902, May 3) finds that while the insertion of the cystoscope is easier in the female than in the male, the subsequent examination is more difficult because the lumen of the bladder in women who come under observation is generally altered by abnormal conditions of the uterus and adnexa, or by pelvic new growths or exudations. As regards the technique of the procedure he insists on the necessity of irrigation until the fluid returns perfectly clear, and then filling the bladder with 200 or 300 ccm.; should some inflammatory process cause this to be rejected, tolerance may be secured by the injection of a 1 per cent. solution of cocaine. Using the unlighted cystoscope as a sound, the cavity of the bladder should then be thoroughly explored, and the relative position of the uterus, and any obstruction or distortion, ascertained. The internal surface should then be illuminated and thoroughly examined through the cystoscope; in this great care is necessary and any sensation of pain or burning should be immediately reported by the patient, and any spot that may have been injured by the heat should be treated with silver nitrate lest it become a seat for infection. The cystoscope gives a certain diagnosis in vesical and renal conditions hitherto obscure, and in skilful hands is less dangerous than other measures (*cf.* Kroenig, *p.* 80).

## DERMOID OF THE BLADDER.

BOGARESKE (*Pract. Vrach*, 1902, No. 5) reports: A woman of 33 had suffered from vesical trouble for eight years and had been treated for catarrh of the bladder without relief. A diagnosis of calculus having been made the urethra was dilated and examined with the finger. A pyriform tumour with a thin pedicle was thus discovered and was removed by the *ecraseur*; it was covered with skin and contained hair, bone and teeth.

## DERMOID CYSTS PERFORATING THE BLADDER.

MUENCH (*Zeits. f. Heilk.*, Bd. xxiii., Heft 1) has found twenty-four recorded cases of the perforation of the bladder by dermoid cysts, and reports an instance of such. The woman was 51 years; she had had no alarming symptoms and no diagnosis had been made. She died the following day, and at the autopsy a papillomatous growth from a dermoid cyst of the left ovary was found to have forced its way into the bladder.

## MOVABLE KIDNEY IN ITS RELATION TO PELVIC AFFECTIONS IN WOMEN.

GOELET, New York (*Amer. Med. Assoc.*, Saratoga, June, 1902), pointed out that nephroptosis generally interfered materially with the returning circulation from the pelvis, either by compressing the vena cava (right kidney) or the veins of the left ovary (left kidney), and thus led to pelvic congestions with the usual sequence of morbid symptoms. A movable kidney might also favour the development of various maladies of the uterus and adnexa such as metritis, displacement, ovaritis, &c.; moreover, it was not uncommon to find renal prolapse complicated with a special condition, characterised by frequent desire to make water, which, under the idea that it was merely a nervous affection had been described as "irritable bladder." He therefore thought that in all cases of gynæcological affections it was desirable to exclude the presence of a movable kidney, and that when such was found nephropexy was to be preferred to any form of palliative treatment.

DUNNING, Indianapolis, had performed seventy nephropexies without a single death. The operation could not therefore be considered a dangerous one; but it was not an

efficient cure unless supplemented by general treatment directed against the original causes of the prolapse.

NOBLE, Philadelphia, deprecated confounding cause and effect. No doubt an anæmic woman with abdominal ptosis after repeated confinements might, simply owing to her general condition, suffer from a displacement of the kidney, but he did not think that the movable kidney could in itself give rise to all the lesions mentioned; indeed, in such cases when the general condition was improved the kidney resumed its normal position. KOLISCHER, Chicago, concurred in this opinion; BACON, Chicago, drew a distinction between the cases in which the kidney alone was prolapsed and those in which it was associated with a general splanchnoptosis; the latter could be successfully treated by measures to strengthen the abdominal wall, and if necessary lend it artificial support.

#### DYSTOPIA OF THE KIDNEY.

MATHES, Graz (*Monats. f. Geb. u. Gyn.*, Bd. xv., S. 263), reports: In a maid of 16, a large fluctuating intraligamentary tumour had developed on the left side, and was diagnosed as a parovarian cyst. On laparotomy the tumour was found to be caused by hydronephrosis of the left kidney, and this, after the presence of the right kidney had been ascertained by palpation, was removed. A hæmatoma formed in the seat of the tumour, suppurated, and was opened from the vagina, and the girl got well. The displacement may be accepted as congenital, the kidney having remained at the seat where it originated and not having been drawn upwards in the normal way. The conditions for the discharge of urine in this abnormal position were unfavourable enough to lead to hydronephrosis. A similar case is quoted by Wylie (*N. Y. Journ. of Gyn. and Obs.*, 1901).

#### AN OPERATION FOR CYSTOCELE.

HIRST (*Amer. Journ. Obst.*, June, 1902) draws attention to the necessity for more thorough operative treatment for cystocele. By the passage of the child's head through the vagina, not only is the anterior vaginal wall separated from the subjacent tissues and pushed downwards and outwards, but there is also a laceration of the muscle of the urogenital trigonum in the anterior sulci. The strongest support of the anterior vaginal wall is the transverse muscle running from the junction of the ischium and pubis, across



the lower anterior portion of the pelvic cavity and actually inserted in the vaginal wall. It runs across the anterior sulci of the vagina and is frequently torn through in labour, usually on the left side. When this occurs the lower portion of the anterior vaginal wall prolapses. An operation for cystocele therefore, in addition to correcting the sagging of the vaginal wall, must repair this torn muscle. The following operation has been done in over twenty cases in the last few months: "The anterior vaginal sulcus on the left side is displayed by three bullet forceps making traction at the three angles of the sulcus. As the woman lies in the dorsal position on the table the sulcus is not easily accessible and cannot easily be denuded; but by fixing one bullet forceps alongside the orifice of the urethra, the other on the opposite vaginal wall, and the third half way up the vaginal wall at the apex of the sulcus, the triangular area involved in the injury comes plainly into view. The triangle is marked out with a knife, and the mucous membrane readily dissected off by scissors. The other side is treated in the same manner. Usually the tear is deeper on the left side and may be confined to that side. The sulcus being denuded, sutures of silkworm gut are inserted in the same way as in an Emmet operation into the posterior sulci. They are temporarily clipped. The cervix is pulled out of the vulva and the rest of the operation for cystocele is performed in the usual manner, with oval denudation, and buried continuous tier suture of catgut. After the closure of the oval denudation, the sulci sutures are united with "shot." To give additional support there should be a restoration of the posterior vaginal wall and of the pelvic floor.

J. F. J.

#### THE FORMATION OF THE PORTIO AND COURSE OF THE MUSCULAR FIBRES OF THE FORNICO-CERVICAL SEGMENT.

MAROCCO (*Centralb. f. Gyn.*, 1902, No. 19), on the basis of personal researches, concludes:—

(1) The portio vaginalis is the result of an invagination of the genital canal taking place after the coalition of Müller's ducts which happens soon after the splitting off of the ureters.

(2) The internal muscular layers of tissue are included in this invagination.

(3) The distribution of the circulation in this invagination is peculiarly well adapted to prepare the part the portio has to play in the subsequent development.



(4) The muscular tissues of this part must not be regarded as elements of the uterus or vagina, but be recognised as a segment of muscular tissue provided with independent innervation.

(5) A special designation for the cervico-fornical segment from the internal orifice to the summit of the vaginal vault, is justified not only anatomically but in respect of its subsequent function.

(6) Recognition of this segment's independence is the key to the explanation of the clinical conditions before and after conception.

(7) Changes in the cervico-fornical segment lead to various affections of the uterus, and especially to chronic metritis.

#### ABSENCE OF UTERUS AND VAGINA; COITUS PER URETHRAM.

BREITENFELD (*Centralb. f. Gyn.*, 1902, No. 15) related the following case to the Buda Pesth Medical Society: The patient, aged 21, had never menstruated; after her first coitus she had genital hæmorrhage, and was so ill as to keep her bed for several days; her urine was bloody for a long time. She was well developed but anæmic. Breasts and external genitals normal; plentiful hair; nymphæ and clitoris rather hypertrophied; below the latter a long longitudinal slit surrounded by numerous small transverse lacerations admitted the index finger, which after overcoming the slight resistance of the sphincter, easily passed into the bladder without causing the patient pain. There was no incontinence of urine. Below the urethral opening there was a blind depression 1 cm. deep, the base of which seemed to be cicatricial in the centre; to the right and left were two blind openings 2 to 3 cm. deep. On rectal examination nothing could be found in the way of a uterus; but at the level of the symphysis a cord could be felt representing the right ovarian ligament and ending in a flat body as large as a bean and tender to the touch, the rudiment of the right ovary. Coitus seldom caused any pain but was sometimes followed by hæmaturia.

#### VARIATIONS IN THE STRUCTURE OF THE MESOMETRIUM AND THEIR INFLUENCE ON THE OCCURRENCE OF MENORRHAGIA AND FLUOR.

THEILHABER and MEIER (*Archiv. f. Gyn.*, Bd. lxvi., Hft. 1) hold that too little attention has been given to the share the "mesometrium" has in the etiology of menorrhagia

and fluor (by "mesometrium" Theilhaber denotes the tissue between the mucous membrane and the serous investment of the uterus). Primary affections of the mesometrium are very common, and lead through disturbed nutrition to an endometritis, which is thus secondary and should not be considered as inflammatory. The two authors have investigated the composition of the mesometrium under the influence of various physiological and pathological processes by taking portions of 61 uteri from women at most various periods of life. The results, apart from other interesting facts, showed a physiological increase in the muscular compared with the connective tissue from puberty to about the thirtieth year, from which time there was at first a gradual and, after the menopause, a rapid diminution to the infantile condition. A disproportion between the amount of muscular tissue and the development of the uterine blood-vessels, is, in Theilhaber's opinion, capable of causing congestion in the uterus, and of leading to secondary disturbances.

#### THE MENOPAUSE.

KLEINWAECHTER (*Zeitschrift f. Geb. u. Gyn.*, Bd. xlvii, Heft 1) discusses the menopause on the basis of 373 personal observations, of which 130 (34·85 per cent.) were premature, 202 (54·15 per cent.) between 45 and 50 years of age, and forty-one (10·77 per cent.) were delayed. The causes of the premature cessation of the catamenia were: Severe hæmorrhage in labour, premature or at term; protracted lactation; puerperal fever; hereditary disposition; hyperinvolution of the uterus after childbirth; infantile uteri; operative intervention such as manual detachment of the placenta and curettage of the uterus apart from childbed; and chronic disease, such as gastric and intestinal catarrh, valvular insufficiency of the heart and diabetes mellitus and insipidus.

As conditions that may supervene on the menopause he describes: Endometritis, a particular form of which he instances as "E. senilis"; chronic metritis; metrorrhagia without apparent cause in the genital organs, but which he attributes to an arterio-sclerosis of the uterine vessels; prolapse of the uterus and vagina; kraurosis vulvæ; vaginismus and carcinoma, in regard to which he found that Jewesses suffered far less frequently from carcinoma than Christian women. A valuable list of the literature of the menopause is appended.

RELATION OF THE NOSE TO THE REPRODUCTIVE ORGANS.

COX (*Brooklyn Med. Journ.*, 1902, July), quoting the old legend that epistaxis is a sign of being in love, points out various facts which suggest a relationship between the nasal and the reproductive organs. Engorgement of the turbinated bodies regularly occurs in some women during the menstrual epoch to such an extent as to embarrass respiration or give rise to menstrual headache. Vicarious bleeding has been repeatedly noticed from the earliest times. Sneezing is in some people an accompaniment of coition or even of sexual excitement. Priapism has been relieved by the application of cocaine to the nose. Nasal disease is frequently affected by menstruation (Trousseau noticed the fetor of ozæna more pronounced at such times), and is mitigated by the menopause. He mentions that Schiff promptly relieved thirty-four of thirty-seven cases of dysmenorrhœa by the application of a 20 per cent. solution of cocaine to the "genital spots," hypogastric pain by cocainising the turbinate and sacral, by applications to the tuberculum septi. By first contracting the tissues by a suprarenal solution, a 3 to 5 per cent. solution of cocaine was sufficient to stop the pelvic pain. Of thirteen negative cases four had fixed retroflexion, two adnexal disease, and one parametritis. Chrobak, in seventeen cases, cauterised the genital spots with trichloracetic acid or electrolysis with no return of the dysmenorrhœa in twelve cases. He noted in two instances complaint of hypogastric pain upon application of the cocaine plug to the turbinate. The castration of young animals limits the development of the nasal erectile tissue.

JAWORSKI and JWANICKI (*Sem. Méd.*, 1902, July 16, p. 240) have applied the intranasal treatment recommended by Fliess and Schiff to seventy-three cases of dysmenorrhœa. In fifteen they merely painted the genital spots (the anterior extremity of the lower cornu and the nasal tubercle) with a 20 per cent. solution of cocaine; in thirteen others a 30 per cent. solution of suprarenal capsules was followed by a cocaine solution of 5 per cent.; thirty women after the application of cocaine to the nasal mucosa were treated by galvano-cauterisation of the genital spots, seven by electrolysis and six by cauterisation with trichloracetic acid. The results were more or less favourable according as the dysmenorrhœa was or was not dependent on inflammatory lesions of the genital organs. In forty-eight instances of the former class (four virgins and eleven nulliparæ), only thirty-two received any

benefit (66 per cent.); while in twenty-five patients (twenty-two virgins) without any inflammation of the genital organs twenty-two were relieved (88 per cent.). In the former group, the cases which were most benefited were chiefly those associated with catarrhal endometritis, but good results were also obtained in ovaritis. Blenorrhagic adnexal disease was especially resistant to this method of treatment, which the authors conclude is most suitable to the dysmenorrhœa of unmarried women or to menstrual trouble of purely nervous origin.

The results of electrolysis or galvano-cauterisation were more marked and permanent than those of trichloroacetic acid; those of mere cocainisation were least evident.

#### THE TREATMENT OF PELVIC INFLAMMATIONS.

BEDFORD FENWICK (*Med. Times*, 1902, June 28) points out that in a very large number of instances of pelvic inflammation we must adopt medical treatment—in some because it gives such great and permanent relief, in others because patients absolutely decline any operative procedure. Formerly these patients went from bad to worse, more recently they have been slowly relieved by local and general remedies; by mercury internally and by inunction; by hot douches and glycerine plugs; but such treatment was necessarily prolonged for many weeks or months. During the last two years he had been using ichthyol in the treatment of pelvic inflammation. He employed it at first in the form of ointments externally and applied on plugs to the cervix with varied effects, latterly in pessaries in combination with glycerine applied night and morning, with marked success. Rest in bed is essential, not only to keep the application in constant apposition to the vaginal vault, but to give that mental and bodily repose which is nature's best assistant. The first object is secured by a wool tampon. A hot antiseptic douche after the removal of the plug not only removes the remains of the pessary and so prevents decomposition, but by its action on the vessels promotes absorption of the drug, a fresh pessary being inserted directly after the douche. Most of the patients suffer more or less from diarrhœa, which may be due to the sulphur contained in the ichthyol, but which no doubt assists in the rapid absorption of the inflammatory products. When constipation is present it is well to give a brisk purgative such as sulphate of soda.

combined in anæmic cases with sulphate of iron. Cases are described illustrating the remarkable results obtained.

#### ON THE TREATMENT OF RETROVERSIO-FLEXIO UTERI.

KOBLANCK (*Zeits. f. Geb. u. Gyn.*, Bd. xlvii., Heft 1) records his experience of the treatment of backward displacements, (1) mechanically, and (2) by operation:—

(1) Of ninety-eight patients treated with pessaries only five or 5·1 per cent. were permanently cured of the displacement. The success of pessary treatment depends: (a) On the choice of the instrument—Thomas' pessary being in his opinion the best; (b) on the complications of the case—the pessary being useless if the anterior vaginal wall be too short or the uterus fixed; (c) on the mode of origin and the duration of the displacement—the so-called puerperal retroflexions which have arisen during childbed being the most benefited. For the relief of fixation Koblanck recommends the use of the quicksilver colpeurynter in the vagina (*Belastungstherapie*).

(2) *Operative measures*.—In the royal Frauenklinik at Berlin during the last four years, 212 operations have been performed for retroflexion, comprising ninety-eight ventrofixations after Olshausen's method, ninety vaginal and twenty-four Alexander operations. Details are given about the ventrofixations, the vaginal shortening of the round ligaments (Wertheim-Bode), and Wertheim's vaginal fixation of those ligaments, which last operation has according to Koblanck the following advantages: (a) Plastic treatment of the vagina and perineum is easily combined with it; (b) it is less trying to the patient than abdominal interference; (c) it is suitable for mobile or fixed retroflexion, and operations on the adnexa can be easily done at the same time; (d) the uterus retains its mobility and capability of enlargement completely just as in ventrofixation (Olshausen's) and Alexander's operations.

#### ALEXANDER-ADAMS OPERATION.

PETERS, Dresden (*Münch. med. Wchns.*, 1902, May 6), in a communication to the Dresden Society for Natural Science and Therapeutics, said that perhaps, with the exception of those well on in years, all women with retroflexion of the uterus, even when no trouble was caused by the displacement, to be sure of timely treatment, should be constantly under medical observation. When there is any doubt as to whether existing trouble is due to the displacement, pessary treatment

will often clear it away, and a useless operation may be avoided. If a mobile retroflexion be the cause of trouble, the necessary explanation should be made by the medical man; but the patient herself should decide whether she will submit to pessary treatment with its discomforts and dubious permanent good effect (16 to 17 per cent. permanent cures after 1·5 to 2 years' treatment), or will accept the more certain and promptly effective operative treatment which is at our disposal in the perfectly safe Alexander-Adams operation.

Operative measures, like treatment by pessary, should be undertaken as soon as possible, either as a prophylactic means of avoiding complications, especially reflex nervous troubles, or to relieve such should they have already supervened.

After describing the various operations that had been suggested for the cure of retroflexion, Peters dwelt more particularly on the more recent ones, especially such as utilised the round ligaments instead of the corpus uteri for the fixation. Vaginofixation, and the Alexander-Adams operation were treated more in detail in regard of their gradual development and effectiveness, and the methods of performing the Alexander-Adams operation were fully described, with illustrations of the anatomical relations of the ligaments and inguinal canals. The injustice of the objections made to this operation was shown, not only by the very satisfactory results in fifty-one cases operated on by the author himself, but by copious quotations of brilliant and incontrovertible successes by German operators, published during recent years.

In his last forty cases the author found the ligaments always (eighty times) without much difficulty, and always well developed. He exhibited some specimens of the portions removed.

In regard to recent proposals to perform the Alexander-Adams operation either through the dilated inguinal ring or *per vaginam*, even when the uterus was fixed, and at the same time as operations on the adnexa, Peter's generally preferred coeliotomy and ventrofixation, but admitted the efficiency of Goldspohn's inguinal coeliotomy for certain cases. Vaginofixation he would confine to women past the climacteric or already sterilised. For mobile retroflexion he recommended the Alexander-Adams operation most warmly as in itself free from danger, and unlikely, even in the hands of the inexperienced, to lead to accidental injury, while its permanent results were indubitably most brilliant. He con-

curred with Fritsch that the opposers of this operation could not be masters of its technique.

#### DISCUSSION ON PETERS' PAPER.

GOEDECKE thought Alexander-Adams operation good for mobile retrodeviation and slight descent. Adhesions should be loosened by colpotomy, which should be followed by vaginofixation (not since 1897, high). For broad, flaky, firm adhesions he preferred Olshausen's operation, which did not interfere with pregnancy or labour.

LEOPOLD thought that the troubles were seldom due to the deviation. The author should have given the indications for operation more exactly. He had himself done the operation twenty times, but was dissatisfied with it. The round ligaments were elastic and could be drawn out 5—6 cm. without bringing the uterus forward.

OSTERLOH admitted that recurrences could not yet be excluded.

PETERS, in reply, said that he operated only in cases in which he found the troubles disappeared after retention of the uterus in the normal position by a pessary; then, if the operation were preferred he performed it. Endometritis, &c., were treated at the same time, and he thought their return was prevented by the operation. Fritsch was, according to his last text-book, an advocate of the operation.

#### A NEW OPERATION FOR RETRODISPLACEMENT.

BALDY (*Amer. Jour. Obst.*, May, 1902) says that Alexander's operation is a thing of the past, and that all operations for fixing or suspending the uterus or for shortening the round ligaments are unsatisfactory, but that the following operation gives perfect results: "The round ligament on each side of the uterus is picked up and a ligature is thrown about it close to the uterus, and so placed as to secure the artery. The ligaments are then severed close to the ligatures. This leaves the uterine ends of the ligaments ligated and the other ends free and bleeding. The bleeding is controlled by a fine ligature to each vessel or by the sutures which fasten them in the next step of the operation. A pair of forceps is now made to perforate the broad ligament from its posterior aspect (at the point at which the round ligament is cut on the anterior surface), and the cut, pelvic end of the round ligament is grasped in the



forceps and pulled through the hole made by the forceps in perforating the broad ligament until it protrudes on the posterior side. The opposite side is treated in a similar manner. The cut ends of the round ligaments are now attached by means of sutures to the posterior aspect of the cornua of the uterus directly behind the original and normal point of attachment of the round ligament. The point of attachment may be higher or lower than this, as the surgeon may find necessary to accomplish the result. If necessary, as much of the round ligament is cut off before suturing it to the uterus as is necessary to take up any slack and give the proper amount of tension and support to the uterus."

The effect of this operation is to draw the fundus of the uterus upward and forward into a perfect position. The uterus remains a pelvic organ and is as free to expand in pregnancy as it was originally. No cases are reported.

J. F. J.

#### VAGINAL FIXATION A DANGER TO PARTURITION.

MATHES, Graz (*Monats. f. Geb. u. Gyn.*, 1902, Bd. xv., S. 410), writes: After Strassmann had drawn attention to the dangerous interference with labour caused by vaginal fixation, a number of cases were reported in which Cæsarean section had been necessary on that account. For some time no such cases have been reported, but it is hard to say whether this is due to that method of fixation being less often adopted in child-bearing women, or to certain modifications in the method. Some operators (Mackenrodt, Ruehl) have given up high fixation, and advise that the peritoneum should be carefully sewn up separately; Duehrssen still advocates the high fixation with the modification just mentioned, and Bohde and Wertheim recommend the attachment of the round ligaments instead of the fundus uteri. Mackenrodt and Duehrssen are able to support their view by a considerable number of successes; nevertheless, disasters are met with which none of the causes hitherto accepted for the interference with labour account for. The following is an instance: A woman of 31, in her third labour; portio to the right at the level of the promontory, summit of the vaginal vault out of reach, cervix sharply flexed against the corpus. In spite of the colpeurynter and good uterine contractions the cervix would not dilate, and after twenty hours' labour, as there was no intermission to the pains, the anterior vaginal wall was extremely tense, the portio had receded, and the os had not



dilated to any extent, the child was delivered (alive) through a sagittal incision after laparotomy. For fear of retention of the lochia on account of the acute flexion of the cervix and the narrowness of the canal, the uterus was extirpated, when it was evident that the extension of the anterior wall had not been prevented by cicatricial adhesions between it and the bladder, but that the obstacle to delivery had been the acute flexion of the cervix. Vaginal Cæsarean section would have been impossible from the way in which the anterior vaginal vault had been dragged upwards. About six years previously the patient had undergone vaginal fixation by Mackenrodt's method without stitching of the opening in the plica peritonei; retroflexion recurred in six months, and was at first treated by a pessary, but vaginal fixation was again performed, seventeen months after the former operation, with ultimate success. With the exception of vomiting in the first two months the last pregnancy had been undisturbed. The woman left the hospital after sixteen days. Though the ovaries had been left, within a few months, though otherwise well, there were signs of approaching menopause.

Mathes recommends that if after vaginal fixation the portio be found acutely flexed against the uterus, to avoid complications in labour, the vaginal attachments should be released and an abdominal operation performed.

#### THE TREATMENT OF INVETERATE RETROVERSION OF THE UTERUS.

BLAND-SUTTON (*Polyclinic*, 1902, June) supports the thesis that the proper treatment of inveterate retroversion of the uterus is hysteropexy. This operation, he maintains, replaces the uterus in its natural position, and so far from preventing pregnancy facilitates the development of that condition, which in itself is one of the most successful methods of overcoming chronic retroversion of the uterus. He admits that there are cases of retroversion without symptoms, and explains that in these the distortion of the uterus is unaccompanied by any displacement of the ovaries. When, on the other hand, pain and other pelvic disturbances are present, these are evidences that one or both ovaries are dislocated from their normal position. In some cases the displacement of an enlarged ovary is the primary event, and the retroversion of the uterus is a consequence of this, whilst in others the ovary is dragged downwards by the abnormally situated

uterus. As a consequence of these displacements, the softened uterus of a multipara may be altered in shape and may contract adhesions to neighbouring parts; and, as a result of obstruction to the circulation, the ovary may become œdematous, or its capsule be thickened, from the pressure of the uterus. The use of pessaries he considers useless or even harmful.

#### THE SIGNIFICANCE OF CAUTERISATION CICATRICES IN THE ABDOMINAL CAVITY.

K. FRANZ, Halle (*Zeits. f. Geb. u. Gyn.*, Bd. xlvii., Heft 1), records two series of experiments on rabbits. In the first, after opening the abdomen, a certain extent of the peritoneum or of the muscosa from which the peritoneum had been removed was cauterised by Paquelin's instrument, and, for comparison, in the same animal, or in one as nearly as possible similar, a corresponding part of the abdominal wall was stripped of peritoneum but not cauterised. It turned out "that the stripping of the peritoneum from even a large surface of the abdominal wall as a rule led to no adhesions," on the other hand, that the presence of the cicatrices of the cautery in the abdominal cavity undoubtedly favoured the development of such adhesions. In the second series of experiments he has investigated in most varied ways the relation of cauterisation to infection, and ascertained that such cicatrices are certainly a predisposing factor in establishing infection.

#### NEW METHOD OF BISECTING THE UTERUS.

RICHARDSON (*Amer. Med.*, 1902, April 26) describes a new method of bisecting the uterus. When the abdomen has been opened in the Trendelenburg position, in order to avoid slight rents which might escape notice, any adhesions of the uterus to the omentum or intestines are carefully separated with the knife rather than torn. The abdominal cavity is well packed with gauze, the uterus is brought well up by strong traction of forceps applied to each of its cornua in the hands of assistants, and the organ is divided by an incision in the median plane. The tension prevents any great hæmorrhage. If none of the cervix is to be left, the incision is carried down to the attachments of the bladder and rectum, and these organs having been separated from the

uterus, is then continued through the cervix, but most operators prefer to leave a short stump and thereby avoid the necessity of opening the vagina and the risk of infection from below.

#### HYSTERECTOMY, ABDOMINAL AND VAGINAL.

LE ROY BROWN (*Amer. Jour. Obst.*, 1901, December) discusses the effects of vaginal, total abdominal, and abdominal supravaginal hysterectomy, on the basis of the mean curves of pulse and temperature of patients who have undergone these operations. Among those who recover the post-operative course is practically the same, except that for two or three days the pulse and temperature are a little more elevated after abdominal than after vaginal hysterectomy, and that after supravaginal amputation the cervical stump leads to exudations that may necessitate a secondary operation by the vaginal or, more often, by the abdominal route. Cervical drainage is no bar to such complication, nor to the fatal septicæmia which such exudation may cause, for the drain only opens the way for an ascending infection from the vagina. The disadvantages of abandoning the cervical stump can only be obviated by obliterating the canal by suture, and as a matter of fact, of fifty cases so treated by the author, not a single one was complicated by exudation or suppuration about the stump.

As supravaginal hysterectomy favours infection, its mortality, as might be expected, is the highest, being 8·5 per cent., compared with 5·55 per cent. for vaginal, and 2·77 per cent. for total abdominal hysterectomy; moreover, it must be remembered that the least septic cases were generally reserved for that method (five deaths, four of which were from septicæmia, in the fifty cases; vaginal hysterectomy, thirty-six cases, two fatal; total abdominal hysterectomy, thirty-six cases, one fatal).

#### MYOMA AND CARDIAC DISEASE.

KESSLER (*Zeits. f. Geb. u. Gyn.*, Bd. xlvii., Heft 1) reports a case in which a myoma weighing, after discharge of its blood, 56 pounds, was removed from a woman of 54 by supravaginal amputation. The woman was doing well, when on the seventh day she sat up in bed and immediately fell back dead. The section disclosed no embolus, but pronounced myofibrosis cordis affecting the auricles as well as

the ventricles. Kessler refers to the hypothesis of Strassmann and Lehmann, who look on the changes in the heart and vessels and in the uterus as symptomatic of disease depending on vaso-motor processes. The practical conclusion would be to remove every myoma, even though it caused no trouble to its subject.

#### MYOMATA AND SURGICAL TREATMENT.

SCHWARZENBACH (*Hegar's Beiträge*, Bd. vi., Heft 1) reports that in the last thirteen years, 393 cases of myoma were admitted into the Zurich Frauenklinik, most of them between the ages of 35 and 55; 86 cases were not treated at all, or only symptomatically; 42 were fibrous polypi; in only two instances were interstitial myomata enucleated from the vagina; laparotomy was done in 261, and in 19 of these the women were castrated (3 deaths); in 87 the tumours were enucleated (13 deaths); in 109 supravaginal amputation, the stump was treated extraperitoneally in 25 (19 deaths), in 7 intraperitoneally (3 deaths), but from the year 1893 invariably transperitoneally. Enucleation without castration is the most ideal method. Amputation is to be preferred to enucleation with castration. In pure myomata total extirpation should be abandoned and amputation take its place.

SEELIGMANN, Hamburg (*Centralb. f. Gyn.*, 1902, No. 21), relates a case of piecemeal vaginal extirpation of a submucous uterine myoma as large as a child's head during pregnancy, in which, in spite of uterine contractions induced by the tumour, and profuse uterine hæmorrhage, and in spite of the extirpation and subsequent plugging, gestation continued, terminating in the thirty-seventh or thirty-eighth week in the birth of a healthy living child. The case is a justification also of the abdominal enucleation, when necessary, of subserous myomata, and of the removal of tumours of the adnexa during pregnancy.

#### ON CONSERVATIVE METHODS OF OPERATING FOR INTERSTITIAL AND SUBMUCOUS FIBROMYOMATA OF THE UTERUS BY MEANS OF LAPAROTOMY.

ABULADSE, Kieff (*Monats. f. Geb. u. Gyn.*, 1902, Bd. xv., S. 528), on the basis of the collected statistics of the conservative treatment of myomata with special regard to Engstroem's records, concludes that in dealing with interstitial and submucous myomata which can only be removed after

laparotomy, conservative myomectomy is the method to be adopted, and permits us to extend the indications for the removal of these tumours. Its mortality is less than that of hysteromyomectomy, and the preserved uterus retains its function. The indications for hysteromyomectomy can and must be narrowed, and in every instance an attempt should be made to enucleate the tumour before determining to remove the uterus. Conservative myomectomy is a direct consequence of the investigation of the pathogenesis of uterine myomata. The operation demands good surgical technique and clinical experience, but no elastic tube round the cervix is necessary.

#### ADENOMYOMA OF THE UTERUS.

CULLEN, Baltimore (*Amer. Med.*, 1902, July 5), in the examination of over 700 cases of uterine myoma at the Johns Hopkins Hospital, found nineteen specimens of adenomyoma. Many were detected in the early stages, and hence the very beginnings could be followed. In fifteen the patients were married, and of this number nine had had children.

Adenomyomata are usually met with during the child-bearing period, and give rise to menstrual disturbance varying from a few months to ten years or more. The periods are usually more profuse and painful, but between periods there is, as a rule, little or no discharge.

In discussing the origin of these neoplasms, he observed that formerly the majority of writers thought that they were due to remnants of the Wolffian duct, but now the consensus of opinion is that the greater number at least are derived either from the uterine mucosa or from a portion of Mueller's duct. In over half of his cases the uterine mucosa could be seen extending by continuity into the adenomyoma, demonstrating beyond peradventure their origin from the mucosa. In the second place, in no other part of the body, either in the embryo or in the adult, do we find glands resembling uterine glands and surrounded by characteristic stroma, and furthermore, the Wolffian body contains no structures that can be mistaken for uterine glands. The uterine mucosa is, as Saenger taught his students, a definite organ and has a well-defined function to fulfil. This function is seen in practically every case of adenomyoma.

Cullen divides these growths into three main groups: (1) Those in which the uterus preserves a relatively normal

contour; (2) subperitoneal or intraligamentary adenomyomas; (3) submucous adenomyomas. In the first group the uterus may be normal in size, but as a rule is two or three times as large as normal. It is globular in form, and often slightly irregular in outline due to small discrete myomas which are often present. The appendages show a peculiar tendency to become adherent, and the uterus is often fixed by dense bands of inflammatory tissue. A sound introduced into the uterus will give no clue, and curettings will invariably yield nothing but normal mucosa. We thus see that while we have some clue from the slow increase in size of the organ and the profuse menstrual period, yet no diagnosis can be made until the organ is removed. The subperitoneal and intraligamentary adenomyomas cannot possibly be differentiated from ordinary myomas, sarcomas, or obscure cysts until removal, and the submucous variety offers no points of clinical variation from submucous myomas. The prognosis in these cases is very favourable, provided the uterus is removed before pressure symptoms have developed. A case of adenocarcinoma developing in part from the glands of an adenomyoma was reported and an illustration given of a squamous-cell carcinoma of the cervix associated with an early adenomyoma of the body.

It is particularly between the first group of cases and uterine carcinoma of the body of the uterus that there will be difficulty in the diagnosis, and this is an argument in favour of more frequent vaginal examinations during the fourth decade, and more rigid determination to know the cause for all extraordinary bleeding or menstrual disturbance, even if in doubtful cases it requires intrauterine and microscopic investigation.

#### UTERINE CANCER.

LEWERS (*Practitioner*, June, 1902) points out that when cancer of the uterus was considered to be a hopeless and uniformly fatal disease, practitioners were loth to suspect its existence, or suspecting it to insist on examination, believing that no great harm could be done by postponing the certain diagnosis of a condition for which practically nothing could be done. We now know that a fair proportion of sufferers may be permanently relieved if the disease be recognised in an early stage. But women regard pain as a necessary accom-

paniment of cancer, and pain is, as a rule, a late symptom in cancer of the cervix, and not an early one in cancer of the body of the uterus; wasting and cachexia also are symptoms of an advanced stage of the disease. A leaflet by the Cancer Commission for distribution to all matrons, nurses, and district visitors, calling their attention to the probable or possible significance of irregular uterine hæmorrhage, would enable many thousands of women to utilise a better knowledge for their own benefit or that of others with whom they came in contact.

If the disease has extended beyond the anatomical limits of the uterus in any direction, radical operation, in his opinion, offers no chance of permanent cure, and very rarely of any considerable relief. Some of his most satisfactory results as regards freedom from recurrence were after supravaginal amputation. But that operation was often followed by obstructive dysmenorrhœa, sometimes severe, and once leading to hæmatometra and hæmatosalpinx. The lessened mortality of vaginal hysterectomy has led him now to treat almost all cases of cervical cancer suitable for radical operation by that method rather than by supravaginal amputation. He has not himself known recurrence to take place after the fourth year after operation, and regards immunity for four years as equivalent to a cure. Of sixty-one cases up to April, 1899, treated radically for cervical cancer, thirty-three by supravaginal amputation and twenty-eight by vaginal hysterectomy, fourteen (eight of the former series and six of the latter) have been free from recurrence from four to fifteen years (23 per cent.). Vaginal hysterectomy for cancer of the body has given him five cures (four to seven years' immunity) in eleven cases, or 45 per cent. The mortality after supravaginal amputation was *nil*; after hysterectomy, three, or 7·5 per cent.; the total mortality, 4 per cent.

HAULTAIN (*ibid.*) estimates that only about 20 per cent. of the cases of malignant disease of the cervix, but the bulk of those of similar disease of the body, are seen in time for radical treatment to offer some hope of cure. In the former class (95 per cent. of all malignant uterine disease) no suspicious bleeding occurs till ulceration takes place, and pain is seldom felt till neighbouring sensitive structures are involved; leucorrhœa, unless unduly aggravated, seldom causes the patient to seek medical advice. The character of the bleeding is all important, sometimes distinctly menorrhagic, it is often inter-menstrual or post-coital; the renewal of hæmorrhage



after the menopause is due to malignant disease in 95 per cent. of all instances.

*Cervical Cancer* is almost entirely confined to women who have borne children. Pain at the best is a late symptom, is most indefinite, in some cases entirely absent, in others causing inscrutable agony; cachexia is also a late symptom. Clinical evidence alone is insufficient, the aid of the microscope is indispensable; the general practitioner can now from our research laboratories obtain a reliable opinion about any scrapings or tissue removed within a week. From the clinical side the most important signs are the friability of the diseased tissue, and free hæmorrhage on gentle touch; but it must not be forgotten that an apparently healthy os externum may be present with advanced malignant disease of the cervical canal, and that examination with the sound, or better with the finger, may be necessary to elicit such hæmorrhage.

The disease is curable if treated early enough; suspicious bleeding should lead to examination, friability and hæmorrhage on touch to an expert's report or consultation with a specialist. Tinkering and expectant treatment are gross malpraxis when the curette and microscope offer such valuable aid.

*Cancer of the body* attacks alike those women who have and who have not borne children; its symptoms, early and profuse menorrhagia followed by metrorrhagia, free leucorrhœal discharge and enlargement of the uterus, are more definite than those of cervical cancer. From subinvolution and fibromyoma it may be differentiated by the curette and microscope, or better by dilatation by tents and digital examination of the cavity, a proceeding which, with antiseptic precautions, can be undertaken without anxiety.

*Sarcoma of the body of the uterus* is rare, of the cervix still rarer; it may arise from the connective tissue of the uterine or cervical mucosa, or of the uterine wall, or from the sarcomatous degeneration of a pre-existing interstitial fibromyoma. Though many cases occur between the ages of 5 and 20 years, it is met with most frequently between 50 and 60. When encapsuled it has probably arisen from pre-existing fibromyoma. *Sarcomata of the cervix* do not invade the body, are generally pedunculated, sometimes projecting into the vagina, and not so friable as carcinoma or epithelioma. A rare form is found in *S. bothryoides*, or grape-like sarcoma. a particularly malignant myxosarcoma of cystiform masses occurring at puberty or after the menopause.

Pain is more marked in sarcoma than in carcinoma; pro-



fuse watery discharge with enlargement of the uterus should suggest it, but the diagnosis depends on the microscope. The disease is generally confined to the uterus; metastases are later, and the prognosis more hopeful than in carcinoma.

*Chorio-epithelioma* is still held by Veit and some others to be of connective tissue origin and therefore of a sarcomatous nature. But since this view was accepted, practically unanimously, by the Obstetrical Society in 1896, a steadily increasing chain of evidence tends to convince the majority of observers that it originates from the epithelial coverings of the chorionic villi. If so, it forms a unique growth of a parasitic nature and must necessarily arise only after pregnancy; no authentic case has been described as yet in which pregnancy could be excluded.

ROBERTS (*ibid.*), in a comprehensive article "On Some Recent Points Bearing on the Etiology and Pathology of Malignant Disease of the Uterus," says of deciduoma malignum: There is a growing belief among some pathologists that all these cases cannot be classed as sarcomata; that it is possible that a new growth may originate from foetal as well as from maternal tissues. An important point needing further research is the possibility of deciduoma malignum of the Fallopian tube, accepted and reported by Saenger. Here no decidual theory is possible and the tumour must arise from the foetal envelope.

This June number of the *Practitioner* is one of particular interest to all gynæcologists on account of these important articles on malignant disease, and of various interesting reviews of gynæcological and obstetrical works.

#### FIBROSARCOMA OF THE UTERUS.

RIDDLE GOFFE (*Amer. Jour. Obst.*, April, 1902) emphasises the necessity of prompt surgical interference in uterine neoplasms by the following case: The patient was aged 54. Her menopause had occurred four years before. Four months ago she began to suffer from a blood-stained discharge, which has continued; she had constant pain in the lower part of the abdomen. A fibroid tumour was diagnosed and the uterus was removed by supravaginal hysterectomy. "It weighs nearly four pounds and consists of an asymmetrical development or infiltration of the entire body of the uterus with fibrosarcomatous tissue, together with a necrotic sarcomatous mass filling the uterine cavity. This springs from

the entire surface of the fundus, has forced its way down as it has grown, expanding the uterine cavity, and in turn being compressed by the uterine contractions till its nourishment has been interrupted and the death of tissue has begun." It was not till after removal that its nature was suspected. Microscopic examination showed it to be a fibrosarcoma.

J. F. J.

#### VAGINAL HYSTERECTOMY IN THE EARLY STAGE OF CANCER OF THE UTERUS.

JANVRIN (*Amer. Jour. Obst.*, May, 1902) reports on sixteen cases of vaginal hysterectomy, all of which had been done more than four years previously; six were cured, giving a percentage of  $37\frac{1}{2}$ . These cases were selected to show the results in that class of case in which the disease begins in the cervix and is still in its early stage. The disease is still confined to the cervix, to the cervix and the mucous membrane of the upper portion of the vagina, and perhaps a part of the endometrium. There must be no infiltration under the vaginal mucous membrane. Even if the disease has extended beyond these limits, hysterectomy by the vaginal or by the combined abdomino-vaginal methods should be done if possible. By this means the local progress of the disease can be checked and the patient exempted for a while from the hæmorrhages and offensive discharge. It is essential for the performance of the operation in these cases that the bladder should be intact and the rectum not be largely involved in the disease.

J. F. J.

#### SCHUCHARDT'S PARAVAGINAL INCISION IN OPERATING FOR UTERINE CANCER.

SCHAUTA, Vienna (*Monats. f. Geb. u. Gyn.*, Bd. xv., Heft 2), details his latest experiences in the operative treatment of cancer of the womb. His first aim to improve the results is the very careful selection of cases. For the present he has, after several disappointments, entirely abandoned abdominal total extirpation with exeresis of the lymphatic glands of the pelvis, since he has been convinced of the unreliability of the condition of those glands. Moreover, there must always be a doubt after the removal of cancerous glands whether the malignant disease is not left in the lymphatic channels leading to them, which it is, nevertheless, impossible to remove. It is for the supporters of the ab-

dominal operation to prove that cases from which the glands are removed do not suffer from recurrence.

Schauta attaches the greatest importance to careful removal of the parametritic tissue. He gives thirty cases operated on during the past year by Schuchardt's paravaginal incision, with five deaths. The total width of the cervix and parametria is stated in every case, and he gives six excellent illustrations of the removed organs. Except in some slight particulars, his technique, which he describes in detail, does not essentially differ from the principles of operation laid down by Schuchardt.

The only actual advantage Schauta sees in the abdominal operation is the possibility it offers of removing the parametric tissue more extensively than can be done by the ordinary methods of vaginal operation, but this advantage is equally afforded by the paravaginal incision.

#### HYSTERECTOMY FOR CANCER WITH PREGNANCY.

BALDWIN (*Amer. Jour. Obst.*, April, 1902) reports a case of hysterectomy during gestation. The patient had a cauliflower growth springing from the posterior lip of the cervix, and was four months pregnant. The growth was removed, the cervix amputated, and the vagina rendered completely aseptic. The vagina was separated in front, the uterus opened and emptied of its contents. By this procedure it was so reduced in size as to be easily removed by vaginal hysterectomy. Recovery was uneventful. Three years later her physician reported the patient as well and hearty. Baldwin holds that it is better to complete the operation at once than to produce a preliminary abortion.

J. F. J.

#### CHORIO-EPITHELIOMA MALIGNUM.

MARCHAND (*Centralb. f. Gyn.*, 1902, No. 13), in a communication to the Leipsic Obstetrical Society, after referring to the first report to the Society by Saenger upon the peculiar form of tumour described by him then as "deciduoma," but afterwards as "decidual sarcoma," gave a comprehensive demonstration, illustrated by numerous preparations and drawings, of the anatomical and histological conditions in the new growth and of their relation to the earlier stages of development of the membranes of the ovum.

He considered the view of Graf Spee and Peters that

the human ovum penetrated the uterine mucosa after the destruction of the epithelium, more probably correct than the older theory of its simply settling down on the surface of the mucous membrane and being subsequently encapsuled, though this latter had been recently demonstrated in the mouse by Sobotta. The vast variations, even within the individual families of the mammalia, do not permit any direct analogy between such processes in animals and human beings.

The various opinions still held as to the origin of the two layers of the epithelial investment of the chorion in the human ovum, and consequently the significance of the syncytial masses which are such an important constituent of chorio-epithelioma, depend on the views held on the mode of implantation.

In his first communication on this new growth, Marchand had felt obliged to adopt the view of Strehl and Langhans that the so-called syncytium descended from the maternal epithelium, but later, on the basis of his own researches into the earlier stages of development of human ova, and on the evidence of transition in many instances between the multinucleated syncytial masses and the isolated elements corresponding to Langhans' layer in chorio-epithelioma, he had been convinced that the syncytium was derived from the embryonal ectoderm.

It is, of course, an acknowledged and incontrovertible fact that multinucleated masses of protoplasm may be formed by the uterine epithelium, and also by other elements of the serotina, and as an example Marchand referred to the well-known change of the uterine epithelium into a thick multinucleated mass of protoplasm in rabbits; he had, however, been able to demonstrate in these animals the formation of a similar layer of syncytium from the ectoderm. By the fusion and generally extensive demolition of both layers in rabbits, the resulting conditions became very complicated. (Kossmann still denies the existence of embryonal syncytium in rabbits.) Since the derivation of the new growth under consideration from the epithelial investment of the chorion had been proved, the term "deciduoma," still generally applied to it, should be abandoned as incorrect, nor is the name "carcinoma syncytiale" an appropriate one, for in the first place, though the malignant new growth is epithelial, it is not a carcinoma, and secondly, it is derived not from the syncytium alone but from the whole of the epithelial investment of the chorionic villi. It is distinguished from a

carcinoma, in the ordinary sense of the word, by the absence of a proper connective tissue stroma round the collections of epithelial cells. The elements of the tumour often develop quite free in the blood spaces, and they then give rise to clotting and the formation of thrombi, and to hæmorrhages, so that the metastases in great part resemble masses of thrombi. This very remarkable condition is explained by the genesis of the tumour from embryonal elements, which even physiologically are distinguished by their close relation to the maternal blood spaces, and the capability they possess of penetrating the maternal tissues and blood-vessels, and then causing the coagulation of the fibrin.

Marchand spoke at the same Society on February 17, 1902, on a case of Gunther's, of Dessau. A woman, aged 52, whose last labour had taken place thirteen years previously, had had persistent hæmorrhage since the autumn of 1901; her uterus was cleared out in November and about a handful of vesicular material was removed, but the hæmorrhage returned. The uterus was enlarged and a firm spherical myoma projected from the posterior wall. A round, hemispherical, but very uneven, mass, about the size of a walnut, for the most part resembling laminated masses of thrombus, projected from the inner surface of the cavity, and in one of the uneven depressions of this mass one could see, even before preparation, a soft, pale grey substance which proved to be part of a blood-soaked chorionic villus. This was surrounded by luxuriant heaps of proliferated epithelium, consisting of separate polygonal cells and irregular multinucleated syncytial masses sown with fat drops. A longitudinal section of the uterus, after hardening, showed that the brownish thrombotic masses penetrated backwards deeply into the muscular tissue of the uterus, so that at one spot the wall was thinned to about 0.5 cm. At this spot there were some swollen villi which apparently had penetrated vessels. Even under a low power, the microscope showed that there was extensive proliferation, of the usual character, of the epithelial investment of these villi, passing into heaps of large cells with large and deeply coloured nuclei; these could be traced uninterruptedly into the musculosa and even through the thickened walls of some veins. This cell invasion, following on proliferation of the residues of an hydatid mole, was therefore still in the early stages of development, and it seemed possible that further consequences had been prevented by the extirpation of the mass.

Referring to a recent article by Winkler, Marchand insisted on the propriety of establishing in every possible case the origin of the new growth from the epithelial investment of chorionic villi still present, often enough as this had been proved already.

Winckler had, again, made a vain attempt to attribute the cell-proliferation to the decidua cells instead of to cells of the ectoderm, considering the placental giant cells to be the origin of the syncytial masses, but the idea that the normal syncytial investment of the chorionic villi could be formed from stray giant cells wandering on the surface, themselves derived from superficial muscular fibres, needed no refutation.

Marchand recognises typical and atypical, and perhaps transitional, forms of this disease. The atypical cases may bear resemblance to sarcoma or carcinoma, but not the typical ones. Till he was able to demonstrate the origin of the malignant elements from the epithelial investment of the villi by a case in which villi actively proliferating epithelium were present, the origin of the cells was more or less hypothetical. Haultain's case completely supported his contention. An embryonic epithelial cell is not to be distinguished from one of connective tissue origin, and the upholders of the sarcoma theory have laboured under the disadvantage of not having seen a case with proliferating villi.

DAVIS (*Amer. Jour. Obst.*, xlii., p. 1) reports: In a 40-year-old XIV.-para, two months pregnant, abortion was induced for hyperemesis, but intermittent vomiting continued; mania, with intense headache, was followed by death from exhaustion. *Post mortem*.—Tumours of posterior of right dura mater, also in substance of occipital lobe and posterior of left cerebellum on the upper surface of the left occipital convolution, and a large tumour in the right ventricle. Other metastases in the lungs, kidneys, and liver. The uterus and ovaries showed no change. All the tumours were characteristic of syncytioma malignum.

The case is analogous to Schmorl's, and Davis supposes that metastases occurred before the discharge of the ovum, or, which seems more improbable, that some chorionic villi found their way into the circulation, settled down, grew, and became malignant.

PETERS (*Centralb. f. Gyn.*, 1902, No. 24), at the Vienna Obstetrical and Gynæcological Society, reported a case of metastases in the vagina three months after a supposed abortion; the uterus was apparently healthy, the scrapings of

the curette having the appearance of normal mucosa. The vaginal tumours were extirpated. It appeared from the series of sections made from them that the tumour had grown into the small veins of the mass removed. Three months later a new tumour was found near the scar of the one first removed. At the same time symptoms of general dispersion of germs of the disease appeared, with serious pulmonary embolism, &c. He gave the case as an example of the extreme malignity of vaginal metastases, and of the necessity of free radical extirpation. SCHAUTA said this case was an incontrovertible proof of the malignant nature of vaginal chorio-epithelioma, and referred to the remarks he had made on Schmitt case (*cf. ante*, vol. xvii., p. 192).

LADINSKI (*Amer. Jour. Obst.*, April, 1902) reviews 132 cases collected from various sources, and gives a clinical description of a case of his own. The patient, aged 19, married one and a half years, had one child in July, 1900. Menstruated in April and May, 1901; no menstruation in June. In the middle of July she had pain in the lower abdomen. At the end of that month some uterine hæmorrhage followed by the escape of a quart of clear fluid tinged with blood. She then began to cough with bloody expectoration. A week later she had severe hæmorrhage, the cervix was dilated, and half a pailful of hydatid cysts were removed. The bleeding ceased and she was sent into hospital, where the house surgeon curetted her. She was discharged at the end of August. In a few days she returned with pain and slight bleeding. Since the bleeding continued in spite of ergot and tonics, the uterus was again curetted on September 10, and she was discharged on September 29. On October 3 she again had severe hæmorrhage, and was seen by Ladinski on October 4. On examination some râles were found in the left lung. There was cough and slight bloody expectoration. Bimanual examination revealed bilateral ovarian cystomata about the size of cocoanuts, and the uterus considerably enlarged. The os was dilated and the uterine cavity explored with the index finger. The endometrium was found to be normal except on the posterior wall near the right cornua, where there was a small elevated nodule which was soft, friable, spongy, and bled freely on touch. The finger easily broke through its apex and penetrated the uterine wall almost to the peritoneal surface. The next day complete hysterectomy was done. She made a good recovery. Her cough and bloody expectoration soon disappeared. A microscopical



examination showed that the nodule was a deciduoma malignum and that both the syncytium and Langhans' cells took a part in its growth. The clinical features which are a help in arriving at a diagnosis are: (1) History of recent parturition or abortion, especially if a hydatid mole has been discharged or placenta retained. (2) Profuse irregular hæmorrhages which recur in spite of repeated curettings. (3) A large hyperplastic uterus with a patulous os. (4) Pain in the pelvis. (5) Anæmia and cachexia. (6) In the early stage a characteristic nodule in the interior of the uterus. (7) Metastatic deposits especially in the vagina and lungs. The only treatment is extirpation of the uterus.

J. F. J.

#### ON CHORIO-EPITHELIOMA, AND ON THE OCCURRENCE OF HYDATIFORM PROLIFERATIONS IN TERATOMATA.

SCHLAGENHAUFER, Vienna (*Wiener kl. Wchns.*, 1902, No. 23), concludes from a minute histological analysis of a tumour of the testicle examined by him, that there are tumours, in no way connected with pregnancy, which exhibit proliferations and metastases similar to chorio-epithelioma, but that such tumours are neither sarcomata nor carcinomata in the ordinary sense of those terms, but are to be looked upon as descendants of the epithelial investment of the chorion. In the course of his article he also discusses the occurrence and significance in teratomata of proliferations resembling those of the hydatid mole.

#### TUBERCULOSIS OF THE VAGINA.

SPRINGER (*Zeits. f. Heilk.*, 1902, Bd. xxiii., Heft 1, p. 1). Tuberculosis affecting the vagina is generally secondary to disease of the uterus or Fallopian tubes, and is much more uncommon. It may, however, arise from bacilli in the urine or peritoneum, or from lupus of the vulva or perineum. At the German University Frauenklinik at Prague, twelve cases only were met with in twelve years. None of them were due to direct external infection, the bacilli reaching the vagina through the blood in two instances, and from neighbouring organs in ten, in eight from the uterus, in one from the tubes and in one from the intestine. It was generally associated with tuberculous meningitis or phthisis.

#### TUBERCULOSIS OF THE FEMALE BLADDER.

KROENIG, Leipsic (*Centralb. f. Gyn.*, No. 19, 1902), gives a case supporting Stoeckel's views (*ante*, May, p. 1) on the



importance of cystoscopy for diagnosis and the relatively favourable prognosis in vesical tuberculosis. The subjective symptoms completely disappeared after removal of the affected kidney and ureter; the patient, however, declined any subsequent cystoscopic examination.

#### TUBERCULOSIS OF THE APPENDIX AND RIGHT ADNEXA.

KRAUS, Vienna (*Monats. f. Geb. u. Gyn.*, Bd. xv., Heft 2), reports: An apparently healthy woman of 30, who ten years previously had had an inflammation of the cæcum, suffered a year ago from circumscribed peritonitis in the right side with slight fever; a thickened tube could be felt above a hard, movable tumour as large as a goose's egg, which was found to the right of the uterus. On operation the right adnexa were found adherent to the intestines, there was a tumour as large as a walnut in the place of the ovary, and the tube was diseased. The appendix was adherent in Douglas' pouch and was resected. Between the tumour and the adherent omentum there was a smaller mass in a membranous sac. On examination, both tumours exhibited tuberculous granulation tissue, and tubercle was also found in the mucosa of the right tube and in the end of the appendix. The entire course of the illness showed that the tuberculous affection of the adnexa had followed an originally isolated tuberculous appendicitis.

#### PAPILLOMATOUS CYSTADENOMA AND THE PAROOPHORON.

POPOFF (*Vratch*, May 25, 1902) draws the following conclusions from a comparative study of the normal paroophoron and microscopic examinations of some specimens of papillomatous cystadenomata: Under suitable conditions the superficial epithelium of the ovary may evince proliferating capacity and lead to the formation of epithelial tumours; the question of the origin of papillomatous cystadenomata from primordial, or even from ripe, follicles, has not yet been definitely settled; the presence of remains of the Wollfian body in the form of primary urinary canals found in the broad ligament, in the hilus of the ovary, in the uterus, Fallopian tubes, and the vagina, may be reckoned as certainly confirmatory of their existing in the medullary and cortical layers of the ovary itself. The origin of papillomatous cystadenomata from the medullary and cortical layers of the ovary is not subject to doubt, the remains of the Wollfian

bodies serving as points of departure for the new growth. The presence of these primary urinary canals may be considered to be demonstrated in the other organs and ligaments of the female genital tissues in which we meet with vestiges of these embryonic formations.

F. E.

#### METASTATIC OVARIAN CARCINOMA AFTER CANCER OF THE STOMACH, INTESTINE, OR OTHER ABDOMINAL ORGANS.

SCHLAGENHAUFER, Vienna (*Monats. f. Geb. u. Gyn.*, 1902, Bd. xv., S. 485), writes: Bilateral malignant tumours of the ovary are generally solid and for the most part carcinomatous; when associated with malignant tumours of the stomach, intestine, or other abdominal organ, they may be accepted as metastases of those tumours. The histological structure of these metastatic ovarian growths corresponds with the character of the primary growth. When mamma, uterus, and vagina can be excluded, the most probable seat of the primary disease is the stomach, intestine, or biliary ducts. In every instance of solid bilateral ovarian tumours a thorough examination should be made of all the abdominal viscera, especially of the stomach. Vomiting and ascites are additional reasons for carefulness.

#### THE HISTOGENESIS OF THE SO-CALLED KRUGENBERG'S OVARIAN TUMOUR.

WAGNER, Vienna (*Wiener kl. Wchns.*, 1902, No. 20), reports: In a woman of 69, who had been but a short time under observation, nodular tumours were found in both ovaries which imparted to those organs a tattered appearance; they were partly of hard, fibrous, partly of softer, consistence, and microscopically were characterised by large limpid, seal-ring cells, with others of epithelial nature, and appeared to be therefore typical Krugenberg tumours. Histological examination proved the tumours to be a metastases of a scirrhus of the stomach, and this case and a review of cognate literature leaves it probable that most of the tumours called Krugenberg's must be looked upon as metastases of primary gastric scirrhus; their histological structure being due to a mucoid metamorphosis of the epithelial cells of an ovarian scirrhus carcinoma.

#### INFECTED OVARIAN CYSTS.

PETERSON (*Amer. Jour. Obst.*, June, 1902) cannot believe that all the reported cases of suppurating ovarian cysts are

such in reality, and describes a case of his own which might easily have been reported as one, but in which, on bacteriological and microscopical examination, it was found that the gross appearances of the fluid contents were the result of necrotic changes in the cyst wall. Cultures made from the fluid at the time of operation gave no growth. From most careful study, and from his own experience, he is convinced that suppuration of an ovarian cyst is a most serious complication, and that, with or without operative interference, it is attended with a high mortality. The contents of every "suppurating cyst" should be subjected to microscopic and bacteriological examination. The majority of the patients from whom cysts shown definitely to contain pathogenic bacteria have been removed by the abdominal route have died of general peritonitis. When the suppurating cyst does not reach above the limits of the pelvis better results may be got from vaginal incision and drainage.

J. F. J.

#### THE OCCURRENCE OF ASCITES IN SOLID ABDOMINAL TUMOURS.

OSLER (*Amer. Medicine*, May 24, 1902) writes: "The interesting lecture by Dr. Eden in the *Lancet* of February 8, on the two cases of solid abdominal tumour with ascites, calls attention to a not sufficiently recognised cause of abdominal dropsy. In 1885 I saw with Dr. Walker, of Dundas, Ontario, a woman with recurring ascites, of doubtful origin, for which she had been tapped many times. Fortunately I saw her a day or two after the removal of the fluid, and was able to feel a tumour in the lower part of the abdomen. A week later Dr. Thomas, of New York, removed a solid ovarian growth, and the patient has been well ever since.

"My interest in the subject has been renewed recently by a very remarkable case referred to me by Dr. Koehler and Dr. Fackler, in a woman, aged 53, who had had at intervals for three years attacks of ascites. Within the past four months she had been tapped four times. Ten years ago it was stated that a tumour had been detected in the abdomen. There was a good deal of discussion as to the nature of the case, and she was referred to me for a decision as to the advisability of an operation. There was a solid tumour in the lower abdomen, which could be moved from side to side. I suggested the possibility of dropsy dependent upon a solid ovarian tumour, and asked my colleague, Dr. Kelly, to operate.

He found a large fibroma of the right ovary with twisted pedicle and adhesions to the omentum. The tumour was removed, and the patient has recovered.

"Dr. Hunner, Professor Kelly's first assistant, has very kindly collected for me the cases bearing upon this point from the gynæcological clinic of the Johns Hopkins Hospital. Among 9,400 cases there have been ten patients with solid ovarian tumours, the ages ranging from 32 to 63. In six of these cases ascites was present on admission. Three of the cases had required repeated tapping. All of the cases recovered after operation.

"As Dr. Eden remarks, ascites is the rule with solid tumours of the ovary, and so rare with fibroids of the uterus that its presence almost serves to exclude them. Other forms of tumour may be associated with ascites. In Montreal I saw a case of leucæmia with recurring ascites. On the occasion of my first visit the distension was so great that the spleen could not be felt; in fact, the diagnosis was not made until after the patient had been tapped. In a case of a solid tumour of the mesentery there was an ascites of moderate degree.

"The association is one to which the attention of the profession has not been called sufficiently. I was so impressed with it in the case upon which Dr. Thomas operated, that I made a reference to solid tumours as a cause of recurring ascites in the first edition of my text-book (1892). The question of operation is a very important one; the solid ovarian tumour is usually benign. Kelly's cases all recovered."

#### FOLLICULOMA MALIGNUM OVARII.

GOTTSCHALK (*Berlin Medical Society*, June 11 and 18, 1902) reported: A woman of 48, who had had three pregnancies, had for about six months suffered from a gradual enlargement of her abdomen with progressive loss of strength. After laparotomy and the escape of a large quantity of albuminous fluid, a small tumour, the size of a fist, lying in the small pelvis, was removed, and both ovaries were also taken away; she has remained well for four years. The tumour removed consisted of a cortical and a medullary layer clearly defined; the former contained numerous cysts, while the latter was compact. Under the microscope one could distinguish a stroma of hyaline tissue, poor in cells and dotted with many hæmorrhages, and a parenchyma formed of special

elements, *i.e.*, of isolated corpuscles clear in outline but without capsule, and containing a large number of nuclei arranged in layers. The fusion of these elements into vesicles and the degeneration of part of their substance had given rise to the cysts above mentioned.

The structure described to some extent suggests an aberrant thyroid from which, however, it is distinguished by certain morphological differences; moreover, thyroid elements in the ovary are invariably associated with epithelial cells, which was not the case in this tumour; as an endothelial or connective tissue origin could also be excluded, Gottschalk held that the new growth had developed at the expense of the primordial follicles.

#### THE FORMATION AND ORIGIN OF DERMOID CYSTS (EMBRYOMATA).

NAUWERCK, in a communication to the Chemnitz Medical Society (May 7, 1902), pointed out that from the standpoint that embryologists, like Bonnet, had adopted the theory of Wilms referring the origin of dermoid cysts of the ovary to ova and follicles uninfluenced by impregnation, could not be supported. On the basis of an ovarian cystoma with four small dermoids which he had examined with Dr. Neck, he showed that, even from the histological point of view, there were serious objections to be made to Wilms' theory. It was not the case, as the latter alleged, that ovarian dermoid cysts invariably contained elements of all three germinal layers; on the contrary such tumours were met with in the structure of which ectoderm and mesoderm alone took part, and the differentiation of ovarian dermoids on Wilms' statement could not be sustained. The villiform or brushlike embryonal layer was sometimes completely absent. As yet no histological proof had been offered that the cysts in question arose from follicles; the microscopical appearances seen by Nauwerck, in the case before them and in ten others, were quite opposed to such an origin, and rather suggested that they were to be referred to the development of displaced ecto- or mesodermal elements into cysts in the usual way. One form of ovarian dermoid cysts consisted entirely of skin and its derivatives. Nauwerck considered that his results agreed with the explanation offered by Bonnet, that these embryomata arose from displaced blastoderms of a fertilised ovum, and that from such, simple or complicated structures might be developed in the ovary as in other parts of the body.

**COLPOTOMY, THE ELECTIVE OPERATION FOR PYOSALPINX.**

TREUB, Amsterdam (*Revue de Gynéc.*, 1902, vi., 1), has practised the conservative treatment of pyosalpinx by posterior colpotomy and plugging with iodoform gauze, which he brought before the Amsterdam Congress in 1899, in seventy-nine cases. When measures to promote resorption have been tried in vain, in some circumstances, for weeks, and continued fever and discomfort, severe pain and permanent size of the tumour, indicate surgical interference, Treub, whatever may be the size, position, or duration of the pyosalpinx, opens the peritoneum from the posterior vaginal vault. Then with the assistance of the hand outside, and as far as possible without any cutting, he forces his way through any adhesions and through the wall of the sac into all the recesses of the abscess; empties it completely by irrigation with boric acid solution, and plugs the cavity with iodoform gauze, to be changed every four to six days. Of the seventy-nine cases, sixty-six were pyosalpinx, thirteen hydrosalpinx; two patients died from puerperal pyæmia; in the majority there was an immediate but transitory improvement, and the fifth case was the first cured, and that incompletely, with a fistula of the small intestine. In one instance he had to perform hysterectomy four months after the colpotomy; in another a multilocular ovarian cystoma was opened six times. The results of this treatment in hydrosalpinx were no better than those of tapping a hydrocele, and in genital tuberculosis they were not beneficial at all. Nevertheless, Treub can show forty-four radical cures, and these all in women between 17 and 34 years of age whom this conservative treatment saved from a premature menopause. In the most favourable cases recovery took a fortnight, but far more frequently several months. According to Treub's experience of pyosalpinx and tubal tuberculosis, when colpotomy is not successful, total vaginal extirpation of uterus and adnexa is the only resource, recurrent hydrosalpinx may be dealt with by laparotomy. The idea of performing salpingostomy by the vagina he abandoned after two failures.

**MENSTRUATION THROUGH AN ABDOMINO-TUBAL FISTULA**

HAECKEL, Stettin (*Monats. f. Geb. u. Gyn.*, Bd. xv., S. 313), reports, as unique, the following case: A large puerperal exudation was cured by incision through the abdominal wall, but a hernia developed at the seat of the wound; in the middle of the old cicatrix there remained a fine fistula which

admitted a probe for 8 cm., and from which, at every menstrual period, blood, but in the intervals only mucus, was discharged. On account of a persisting tumour of the left adnexa the abdomen was opened, and it was found that the fimbriæ of the left tube had fastened into the old wound in the abdominal wall, and that the abdominal end of the tube had free communication outwards through the fistula. [For two similar cases reported by Thompson, of Odessa, *ante*, vol. xiv., p. 607 ; another by Gibson, vol. xvi., p. 125.]

#### TUBAL GESTATION : ETIOLOGY.

RONCAGLIA (*Lucina*, 1902, June) reviews eighteen collected cases of tubal gestation, and supports the idea which appears to be everywhere gaining acceptance, that puerperal and gonorrhœal infection are important factors in the origin of ectopic gestation. In one case, an instance of recurrence, gonorrhœal infection had been diagnosed clinically and gonococci found. There had been inflammation of the left adnexa with signs of pelvic peritonitis, and after a few months pregnancy occurred in this tube and terminated by abortion. At the operation the right adnexa were found quite normal, and were therefore left. For three years she did well ; pains then came on the right side ; after some months tubal gestation of this side, for which abdominal section was again performed. In a second case puerperal fever supervened after an abortion at the second month which was badly treated, and tubal gestation developed on the affected side ; and in another instance, also, the tubal gestation had developed after puerperal infection. In the whole series of eighteen cases the etiology was as follows : In six, gonorrhœal infection ; in three, puerperal infection ; in one, both forms of infection ; in two, inflammatory alterations of the internal genital apparatus not clearly defined ; in the remaining six cases it was unknown. The most frequent cause, therefore, appears to be gonorrhœal infection, as Ahlfeld, Price, Duehrssen, Schauta, Glitsch, Vignard, Verdelet, and others admit. On the other hand, numerous cases of tubal gestation have been reported by Strauch, of Moscow, and others, in which no traces of pre-existing inflammatory lesions could be demonstrated. It is very doubtful whether gonorrhœal infection can be safely excluded, on purely clinical grounds, in cases of tubal gestation in which every cause for pre-existing inflammation is absent ; microscopical investigation of the genital tract for signs of gonorrhœal infection, when such cannot be detected clinically,



is therefore indispensable. He concludes that in the majority of cases there is a predisposition in the tube sufficient to cause the ovum to be implanted there, and this predisposition is most frequently due to some inflammatory process arising from gonorrhoeal or puerperal infection. As regards diagnosis, the facts to be gained from the history of the case and combined examination practically remove all difficulties. In operating the author always prefers the abdominal route, though in two instances, for special reasons, he has used the vaginal route. He does not remove the other tube, if healthy, just as he does not regard castration as the complement of Cæsarean section.

F. E.

#### THE TUBAL IMPLANTATION OF HUMAN OVA

HEINSIUS, Greifswald (*Monats. f. Geb. u. Gyn.*, Bd. xv., Heft 3), gives a brief review of the prevailing views, and his own ideas upon tubal implantation, of which, like Werth, he recognises two kinds: (1) Between two tubal folds; (2) on the summit of one. The ovum buries itself in the mucosa beneath the epithelial layer, and by means of Langhans' cells embeds itself in the musculosa. There is no continuously connected formation of decidua. The cells of Langhans penetrate as far as the serosa. Hæmorrhages occur from diapedesis and perhaps from the direct opening of blood-vessels due to increased internal pressure and invasion of Langhans' cells. It is these cells which constitute the destructive element, lead to the thinning of the tubal wall, and sometimes to rupture; abortion, with or without rupture, may occur in this way. The most usual course is the death of the ovum and its metamorphosis into a blood-mole.

#### THE IMPLANTATION AND DEVELOPMENT OF THE OVUM IN THE OVARY.

FRANZ, Halle (*Hegar's Beitræge*, Bd. vi., Heft 1), reports a case of ovarian pregnancy in which the ovum indubitably made its nest in the ovary and ovarian tissue formed its capsule; there was no connected decidua; all the cells of the ovum bore a double epithelial investment—Langhans' layer and the syncytium over it. In ovarian as in tubal pregnancy one therefore finds an imperfect formation of decidua, and an active penetration of the ovum into the maternal tissues by means of Langhans' cells, the opening up of vessels and the growth of the ovisac until it ruptures.



## OVARIAN PREGNANCY.

LUMPE, Salzburg (*Monats. f. Geb. u. Gyn.*, Bd. xv., Heft 1), reports the following case: The patient was 33 years old, and on admission her temperature was  $39.5^{\circ}$ , her abdomen 135 cm. in circumference, with distinct fluctuation all over it. The foetal parts could not be felt, nor the heart sounds heard. The uterus was empty and not enlarged. On opening the abdomen a large hard cyst was found everywhere adherent to the abdominal wall, omentum or intestine; it contained gas, about 2 litres of putrefied matter, and a macerated foetus 53 cm. long and 2,870 grammes in weight. The placenta was separated from the cyst wall just like one from the uterine cavity. The left tube was adherent for nearly its entire length to the gestation sac and elongated. The ligamentum ovarii proprium passed directly into the tumour, and there was on this side no ovary. The author thinks it not improbable that the case presents a combination of physiological and pathological new growth; that under the influence and stimulus of an ovule fertilised in the ovary a large firm cyst may be formed there in which the embryo, under favourable circumstances, may develop to maturity. The case was not available for histology on account of the advanced putrefaction.

## ECTOPIC GESTATION.

DOBBERT, St. Petersburg (*Archiv. f. Gyn.*, Bd. lxvi., Heft 1), reports on sixty cases of tubal pregnancy interrupted in early stages of their development; fourteen treated conservatively recovered, but there were five deaths among the forty-six submitted to operation. No deaths should occur under conservative treatment, as such should only be employed when the changes that have resulted permit of complete resorption; on the other hand, persistence of the abdominal bleeding, delayed resorption, and the occurrence of complications in the course of the case, compel immediate operation. Plugging through the abdominal wound proved very prejudicial in regard to the duration of cure, and also for the subsequent condition; this proceeding is therefore unjustifiable except for exceptional complications.

## TUBAL GESTATION: OPERATION BY THE VAGINA.

STRASSMANN, in a communication to the Medical Society of Berlin (March, 1902), advocated colpotomy in the treatment

of tubal pregnancy as easier of execution than laparotomy, as avoiding the sufferings due to the abdominal cicatrix, to adhesions, to hernia, and as not involving such a prolonged convalescence, nor so often interfering with the capability of the patient to resume work. Nevertheless, colpotomy was not, in his opinion, to be undertaken if the pregnancy had proceeded beyond the fourth month. The indication for operation was given by hæmorrhage, or in the absence of hæmorrhage, by pain, or again, by chronic lesions consecutive to rupture. When the diagnosis was in doubt, when there was any question of appendicitis or of perforation of a round ulcer, or when the loss of blood was an alarming one, laparotomy was to be preferred, especially if adequate assistance was not available.

Strassmann had treated nine extrauterine pregnancies by the vaginal way, five by anterior, and four by posterior colpotomy. In one instance there had been recent hæmorrhage, in two there were tubal moles, and in six there had been tubal abortion. He had been able to collect sixty analogous cases, all terminating favourably.

FALK pointed out that owing to the copious blood supply of the uterus in extrauterine gestation, a colpotomy might cause profuse hæmorrhage. Because of this complication Schauta had, in four out of sixteen of these operations, to resort to hysterectomy. Laparotomy was much safer, and he had himself operated by the abdominal way in nineteen cases with only one death, that of a woman in the fifth month in whose case colpotomy would not have been justified. Indeed, the latter operation, in his opinion, was only fitted for cases of old standing.

GOTTSCHALK advocated the abdominal way as long as the pregnancy was still increasing, for the hæmorrhage might then be so abundant that success was a question of minutes, and laparotomy was undoubtedly more expeditious than colpotomy. Colpotomy offered certain advantages when one had to do with a dead foetus or with the formation of moles, but in most of such cases the troubles would disappear without any operation at all. Colpotomy was, however, indicated in feverish cases where one had reason to fear that the hæmatocoele might be infected; it was contraindicated when one suspected firm intestinal adhesions.

BROESE considered colpotomy justified whenever the foetus was dead, when the pregnancy had not gone beyond four months, and when the hæmatocoele had suppurated; but

concurred with Gottschalk that laparotomy was preferable when the pregnancy was still increasing and when one had not adequate assistance. The colpotomy ought, he thought, to be generally posterior, and the tube, if possible, should be preserved.

SCHONHEIMER considered that in view of the great diversity of the cases no general statement could be made that the vaginal operation was better than the abdominal, or *vice versa*; nor, again, that it was better not to operate at all. An old hæmatocele might, it was true, cause trouble, but the course after operation was not always free from such. He quoted an instance of a woman who, a year after undergoing laparotomy for tubal pregnancy, had an intrauterine pregnancy during which, as laparotomy disclosed, an intestinal occlusion took place owing to strangulation of the bowel between the enlarged uterus and the abdominal cicatrix.

DUEHRSEN declared himself entirely in favour of colpotomy, which he had practised in thirty-six cases without any fatality. He habitually tried to preserve the tube.

STRASSMANN pointed out that the vaginal operation has an additional advantage in that it avoided the necessity of interfering with inflammatory exudations which one would be obliged to traverse in reaching the tube by the abdomen.

#### NOTES ON THE VITALITY OF SPERMATOZOA.

DE ROSTER (*Gior. Soc. Tosc. Ost. e Gin.*, 1902, April) concludes from examining stained microscopical specimens of sperm taken from the female genital canal that: (1) The spermatozoa reach the ovum by their own active motion, and by chemiotaxis; (2) the duration of their vitality is much longer in the cervical canal than in the vagina; (3) coitus, or the stimulus caused by the presence of the sperm, determines an immigration of polynucleated leucocytes into the cervical canal which leads to the destruction of the spermatozoa; (4) nuclei of the spermatozoa are found in the leucocytes, and spermatozoa in the cast-off degenerated squamous epithelium; (5) the relative state of vitality of the spermatozoa may be recognised by their susceptibility to double staining with methyl saffron and green; the cells stain with the saffron, rose colour in the protoplasm, more intense in the nuclei; the spermatozoa stain intensely green when dead, and red-violet when living. F. E.

#### THE TERM "PRIMIPARA" AND ITS PROPER ANALOGUES.

Many inaccuracies in speaking and writing are accepted without cavil when use has proved them to be convenient.

	ADJECTIVAL FORM Mother of first child, second child, &c.	ADVERBIAL FORM Mother for the first time, second time, &c.	REMARKS
I.-para ...	Uni-para, Primi-para	Primo-para	As "primus" strictly implies a 2nd and a 3rd, "uni-para" is more technically correct, where there has been only one birth; but "primo" is admissible, and the adverb "semel" could not be used in composition; "primo" (adv.) "means for first time."
II.-para ...	Secundi-para	Secundo-para, or bi-para	"Secundo" = for second time; "bis" = twice. There is little real objection to "bi-para," even twins are born at one confinement.
III.-para...	Terti-para, Tertii-para	Tertio-para, Ter-para	"Ter-para" might be admissible; "terti" is stem, so "tertii-para" would be the full form.
IV.-para ...	Quarti-para	Quarto-para, Quater-para	So too "quater-para" would be admissible.
V.-para ...	Quinti-para	Quinto-para, Quinqui-para	From the adv. "quiniens."
VI.-para ...	Sexti-para	Sexto-para, Sexi-para	"Sexto" = the sixth time, the adv. "sexies" (sexiens), "six times," might justify the alternative form.
VII.-para...	Septimi-para	Septimo-para, Septi-para	From "septi-ens" (septem-para, mother of 7, would also become "septi-para").
VIII.-para	Octavi-para	Octi-para, (Octavo-para)	"Octavo" does not seem to be used, but one might certainly coin it by analogy.
IX.-para ...	Noni-para	Nono-para	'Nono' is actually found; "noni-para" would seem to be open to the objection above-mentioned, otherwise it is correctly formed from "noviens," nine times.
X. para ...	Decimi-para	Deci-para	The adv. form from "deciens."
XI.-para ...	Undecimi-para	Undeci-para	
XII.-para	Duodecimi-para	Duodeci-para	

The term "primipara" is classical, inasmuch as Pliny applied it to an animal who had brought forth for the first time; but it is currently used with regard to a woman with child, or in travail or child-bed, for the first time. "Biparous" is taken to mean mother of two at a time, though, as *bivira* means married to a second husband, *bipara* might very well be applied to a woman bearing her second child, for "multiparous" means mother of several at one birth, but "multipara" is used to denote that the pregnancy or labour in question is not the first the woman has undergone. "Pluripara," though stated in medical dictionaries to be synonymous with "multipara," is, by some writers, conveniently, but arbitrarily, restricted to women who have borne not less than four children.

The number of the pregnancy, labour, or child-bed a patient is passing through is, at all events in reporting cases, commonly indicated by a capital Roman numeral connected by a hyphen to the suffix "para." That "I.-para" should read "primipara" will cause no difficulty; but expressions so combined are not appropriate in any composition of higher literary quality than case-taking, and even in the reports of cases, when such have to be read aloud, may cause more than momentary hesitation to anyone no longer familiar with his "humanities." Moreover, "primipara" may be regarded as formed either from the adjective or adverb to mean either "bearing a first child," or "bearing for the first time." The same remark applies, *mutatis mutandis*, to the forms here given down to the sixth, and, except "novipara," which suggests "newly delivered," the adverbial ones seem preferable. For "tertiopara," which hardly commends itself to the ear, *trigamus*, a thrice married man, might suggest "tripara," but that, in the face of the received meaning of "biparous" seems inadmissible, moreover, *trigamus* is originally Greek. [ED.]

#### THE PRINCIPLES OF TREATMENT IN ABORTION, AND ITS DANGERS.

SELLHEIM, Freiburg (*Muench. med. Wchns.*, 1902, No. 10), was led, by an instance of perforation of the uterus and the tearing to pieces of 30 cm. of the large intestine by a pair of abortion forceps, to consider what method of treating abortion was most likely to save the general practitioner from mischances. It must never be forgotten that though an abortion

certainly requires skilled observation it very rarely demands active interference. The first principle of treatment is to preserve an expectant attitude while an abortion is taking place ; only serious anæmia, the retention of parts of the ovum, or infection, can justify any other course.

The rational method of arresting hæmorrhage by the complete removal of the ovum, is to be adopted under conditions that are different in different cases. When the ovum is separated, and in the vagina or dilated cervix, it may be removed, through a speculum, with a pair of ovum forceps. If the os uteri will admit one or two fingers, an ovum higher up may be shelled out and extracted by the finger ; if the os is not passable the uterus should be plugged ; when abortion is completed without interference and hæmorrhage, and infection can be excluded, a retained decidua vera may be left alone ; if one finger can be introduced and the uterus cleared of everything loose in the cavity, the exact removal of every rag of decidua vera is not necessary. The question whether all has come away is to be decided by examining the ejected ovum, and by the clinical symptoms of the mother.

In so-called incomplete abortion we have, even when the os is closed, to decide by bimanual palpation whether any large or small remnants are left in the uterus ; the use of the sound for this purpose is to be avoided as uncertain and dangerous. The removal of any retained parts of the ovum is the basis of all treatment in these cases, and if external pressure does not expel them completely, one should endeavour, in the first place, to detach them with the finger alone, and if, when cast off, they cannot be extracted by the finger, the ovum forceps may be used under the cover of the finger. When the detachment cannot be managed by the finger alone, under cover and guidance of that finger the retained tissue may be alternately seized in the forceps and again let go. The general practitioner cannot be advised to use an ovum forceps except under cover of the finger. The residual masses may, perhaps, be loosened by a preliminary tamponade of the uterus and then expelled by uterine contractions or removed by the finger. When the os uteri is contracted, forcible dilatation for the admission of the finger in order to remove small scraps of tissue is not necessary—curettage and irrigation is quite sufficient for such.

When sepsis is established the uterus should be cleared as quickly as possible, but with all possible gentleness. If the os be contracted, dilatation to admit the finger should, for

fear of infection by putrefying agents, be effected by plugging with iodoform gauze. In severe instances of septic infection, Hegar's instruments may, if necessary, be used to dilate, but the finger to empty, the uterus, avoiding, if possible, the use of the curette; thereafter constant drainage with chlorine water.

Any and every interference in the treatment of abortion should be conducted in the gentlest way possible, and if found difficult, or if the diagnosis be uncertain, under an anæsthetic. The ovum forceps, of which the danger in unskilled hands is greater than that of the sound or curette, inasmuch as the intestine may be dragged down and lacerated, should not be too long in the blades, and should have blunt edges. Although the prognosis as regards perforation that may happen in hospitals is comparatively good, the same cannot be said of cases in private practice, where every injury to the uterus must be considered to involve direct danger to life.

#### ALBUMINURIA IN PREGNANCY.

VEIT, Leyden (*Berliner kl. Wchns.*, 1902, No. 23), summarises the conclusions to be drawn from experiments he has made as follows: In rabbits, the introduction of a sufficient quantity of placenta into the peritoneal cavity induces albuminuria. The pigment in the skin of the pregnant contains iron. The presence of hæmoglobin in the urine of the pregnant is exceptional. The blood serum of the new-born child may, occasionally, but does not usually, contain hæmoglobin. Scientific obstetrics demand not merely a knowledge of the best method of delivering a woman, but a better acquaintance with the influence of pregnancy on the entire system of the mother.

#### THE SIGNIFICANCE OF ALBUMINURIA IN PREGNANCY.

MORSE (*Amer. Jour. Obst.*, April, 1902) does not attach great importance to the presence of albumin in the urine during pregnancy. Albuminuria has a "will-o'-the-wisp" character in these cases. It may be absent in the worst cases of toxæmia, and it may be present without any other symptoms. If, however, the normal amount of urea is decreased and continues for any length of time, signs of toxæmia are not wanting. The toxæmia is due to faulty excretion of urea.



The urine during pregnancy should, therefore, be regularly examined, and a quantitative estimation of the urea made.

J. F. J.

#### ALBUMINURIC RETINITIS IN PREGNANCY, WITH DETACHMENT OF THE RETINA.

HEILBRON (*Berlin. kl. Wchns.*, 1902, February 2) reports: A woman of 23 became suddenly blind when eight months pregnant, and was found by the ophthalmoscope to have albuminuric retinitis with separation of the retina. Her urine contained 0·35 per cent. of albumen. Labour was induced, and four days later the child was born dead. The retina healed and she recovered completely in ten days. This is the twenty-first case of the kind reported. The attack is sudden, with absolute or almost complete blindness, but except in chronic nephritis the prognosis is good and recovery comparatively quick when labour has been induced. The detachment is due to exudation owing to changes in the walls of the retinal capillaries.

#### POLYHYDRAMNIOS.

DAVIS (*Phila. Med. Jour.*, 1902, May 17) discusses the diagnosis and treatment of dropsy of the amnion on the basis of five cases, one of which is an example of excessive secretion from cerebrospinal canal of the foetus. Acute hydramnios begins about the sixth month of gestation, and may be readily confounded with ascites, ectopic gestation (with which in its earlier stages it may be associated), ovarian cyst, and encysted dropsy, or localised tubercular peritonitis. Abdominal section is justifiable to complete a doubtful diagnosis and deal with any condition requiring removal. It is notable that in spite of the increased amount of liquor amnii the membranes are not tense but relaxed. Drugs have not been found useful; if the amount of fluid be not increasing rapidly, immediate interference is not imperative, but should it be so, and the patient's general health be suffering, the pregnancy should be terminated by the introduction of a pair of dressing forceps between the uterine wall of the membranes and rupturing the latter as high up as may be.

#### ACCOUCHEMENT FORCÉ IN PUERPERAL TOXÆMIA

MCCONE (*Amer. Jour. Obst.*, May, 1902) reports four cases of severe puerperal toxæmia treated by accouchement



forcé. (1) Primipara. Six months pregnant on November 1, 1899; urine normal. On November 11, acute toxæmia; subcutaneous oedema, severe convulsion, loss of consciousness, rapid, weak pulse, and short, shallow breathing. The patient being comatose, accouchement forcé was performed without any anæsthetic. Uterine bleeding was encouraged. There were two subsequent convulsions. Only 150 cubic centimetres of urine were secreted in the first twenty-four hours after delivery, but the quantity increased from day to day, and in six weeks the patient was in good health.

(2) Primipara. When four months pregnant the urine became less in quantity and contained albumin. Milk diet was ordered, and diaphoretics, diuretics, &c., administered. On May 1, when five months pregnant, a convulsion occurred, and only a small quantity of bloody urine was passed. General oedema supervened and dulness of sight and intellect. Further convulsions occurred on May 5. Accouchement forcé was performed. The foetus had been dead for some time. Recovery was uneventful.

(3) Mother of four children. Six months pregnant. For two weeks there had been gradual loss of vision, culminating in blindness, uncontrollable vomiting, acute uræmic mania. Nitroglycerine, hot-air baths, milk diet, and salt solution were all tried without effect. A macerated foetus was removed by accouchement forcé, and in three weeks the patient was well and her vision nearly perfect.

(4) Primipara. Seven months pregnant. For two weeks there were uncontrollable vomiting, headache, dimness of vision, and finally convulsions. A seven months' child was delivered alive. The mother made a good recovery.

J. F. J.

#### ON RAPID DILATION OF THE CERVIX WITH BOSSI'S INSTRUMENT IN ECLAMPSIA.

RISSMANN, Osnabrück (*Centralb. f. Gyn.*, 1902, No. 28), reports three cases of eclampsia. The third case was fatal from that disease, and Rissmann insists that our best hopes depend on improved prophylaxis, and that the urine of pregnant women should be examined at least once every four weeks, as in the Institution for the Instruction of Midwives under his charge.

As regards the method of using the dilator, he recommends the use of a speculum, the posterior blade of which can be

taken away when the dilatation has been carried as far as No. 5 on the scale. The os does not thin, the cervix is not "taken up." If the instrument be taken away the os "snaps" together, as it did notably in the third case, a very old primipara. Laceration, therefore, cannot always be avoided if delivery immediately follows dilatation. In private practice, therefore, he recommends no hurry, and perhaps the introduction of an elastic bag; however, with a head presentation a cautious attempt to extract with forceps may be made as soon as the dilator is withdrawn.

He thinks the construction of the instrument might be improved by the addition of oval fenestræ and of larger spoon-shaped caps to be substituted for the others, only when the dilatation has reached about No. 6. He points out that in its present form the branches do not dilate evenly, *e.g.*, when the instrument is dilated to No. 9, the distance between the blades in the direct diameter of the pelvis differs materially from that between the other two branches, is, in fact, as 11:12.5 cm. But even as it is he strongly commends the instrument, pointing out that apart from its use in eclampsia, the induction of premature labour can be much accelerated by it, even if one only dilates the cervix sufficiently to introduce a larger elastic bag; and in case of abortion, the os can easily be dilated to admit one or two fingers. In correcting his article for the press, he appended a successful case of induction of labour; a laminaria tent for twenty-four hours, then the dilator, introduced without caps, and dilated up to about 3.5, enabled him to introduce a Barnes' bag, which led to the oncome of the pains.

#### PREGNANCY IN ONE HORN OF A DIVIDED UTERUS.

RAPIN and SENARCLENS (*Rev. méd. Suisse rom.*, January, 1902) report: A woman, admitted into the Maternity at Lausanne, offered all the outward signs of a pregnancy which, from the anamnesis, dated from ten and a half to eleven and a half months; she had had a normal pregnancy fourteen years previously. Palpation disclosed an ovoid tumour nearly filling the abdominal cavity and extending into the small pelvis, almost immovable, very tense and fluctuating; no foetal parts could be felt. In front of this tumour there was, extending 8 to 10 cm. above the symphysis, an elongated prominence, the movements of which were distinctly communicated to a small open neck lying deeply in the anterior

vaginal cul-de-sac; the lateral and posterior culs-de-sacs were obliterated. The hypothesis of a prolonged pregnancy seeming very improbable, the diagnosis suggested was an ovarian cyst enclosed in the left broad ligament, extending into Douglas' pouch and adherent to the neighbouring organs. Laparotomy proved existence of a pregnancy, but that, the uterus being divided, the foetus lay in the left horn, of which the collum was totally occluded, and that the prominence in front of the tumour was the right horn. The gravid sac was opened and a macerated foetus, apparently of eight months' development, was extracted; after detaching the placenta the sac was marsupialised with drainage into the vagina. The patient made a good recovery. A small secondary operation insured the permeability of the left cervix of which the canal had been opened for the passage of the vaginal drain. The chance of a recurrence was thus excluded. To explain conception in the closed horn, the authors suppose that there may have been a small aperture in the septum between the two horns: of course it is not impossible for the spermatozoa to have wandered round the peritoneal cavity.

#### TWIN PREGNANCY IN A UTERUS BICORNIS DUPLEX.

KOSLENSKO, Moskow (*Centralb. f. Gynäk.*, 1902, S. 40), reports an instance of simultaneous or almost simultaneous conception in both horns of a double uterus. The woman, a nonipara, had aborted in her fourth and sixth pregnancy; her last labour was normal; one child alive. The uterus exhibited a longitudinal furrow on its anterior surface; the heart sounds could be heard equally well on both sides of the linea alba. By vaginal examination the cervix seemed to be thickened on the right side. The uterine contractions were vigorous, and a little girl was born without delay; but it was then evident that the size of the abdomen was still considerable, especially on the right side, and, moreover, that alongside the neck from which the child had just been born, there was a second neck, the thickened portion above mentioned being merely the septum between the two. This second neck was in course of dilatation, and the bag of waters could be felt bulging behind it. When the waters broke the contractions became weak, and delivery was effected with the forceps; but before the placenta came away there was such copious hæmorrhage as to compel manual extraction of the afterbirth. During this manipulation it was ascertained that

two cervical canals led into two distinct uterine cavities. The woman recovered without any complication. Both the children were girls; the one weighed 2,000 grms. and died very shortly; the other, 2,500 grms., developed normally.

#### PROGRESS IN OBSTETRICS.

WORRALL (*Austr. Med. Gaz.*, 1902, March), President of the Obstetric and Gynæcological Section of the First Inter-State Medical Congress at Hobart, quoted, as from a handbook of midwifery he had read as a student: "The man who would plunge a perforator into the head of an unborn babe would not hesitate, under the cloak of night, to use the dagger of the assassin," a sentence which he said more accurately translated the medical opinion of the present day when craniotomy on the living foetus, except in very unusual circumstances, is universally condemned, than that of 1878. As regarded Cæsarean section, now generally accepted as the proper procedure in all cases in which the child in the uterus is alive and cannot be delivered through the natural passages, he held that when there was a permanent and insuperable obstruction, it was wiser, in order to sterilise the woman, instead of excising portions of the Fallopian tubes, to do a supravaginal amputation and leave the ovaries. This would prevent future pregnancy more surely than total excision of the tubes, was the shorter and safer operation, and saved the patient from all the dangers of the puerperium. Retroperitoneal treatment of the stump was infinitely preferable to the old Porro operation. Palpation of the abdomen was a method of diagnosis which more than any other brought satisfaction and credit to a practitioner; it enabled him to ascertain the presence of twins, the position of the foetus, the progress of labour, and in case of malpresentations, of the brow or occiput, to abstain from the use of forceps till such had been rectified, and this without subjecting the patient to any risk.

In the third stage of labour, modern teaching was entirely against hurry, and he himself believed that no one factor connected with the management of labour was so potent for evil as the forcible and early extraction of the placenta.

We now knew the douche to be unnecessary as a routine practice in normal labour. In the treatment of septic conditions its use, vaginal or intrauterine, was a valuable aid, but it must be regarded as an *operation*, be preceded by thorough

disinfection of the external genitals, and be carried out by the medical attendant himself.

Ectopic gestation was a condition upon which our knowledge had been greatly improved, and for which hardly a week now passed without successful operations in the chief hospitals of Australia. In its diagnosis he had come to attach much importance to the steady drain of dark venous blood continuing for many days, as distinguishing it to some extent from uterine abortion, in which the hæmorrhage was brighter and more in gushes or clotted. A point of much importance, not clearly stated in some text-books, was that in very acute cases no tumour was to be felt, but merely a boggy, tender fulness in the vaginal vault. As a means of clearing up a doubtful diagnosis, he considered vaginal coeliotomy to be practically free from danger.

#### A RARE INDICATION FOR SUPRAVAGINAL AMPUTATION OF THE UTERUS.

KLEINHANS, Prague (*Monats. f. Geb. u. Gyn.*, Bd. xv., Heft 3). In a quartipara in the fourth month of pregnancy, abortion began, but could not terminate spontaneously owing to the extreme contraction of her osteomalacic pelvis; the contents of the uterus had begun to putrefy and she had cystitis. She recovered after laparotomy and supravaginal amputation. Between the promontory and the horizontal rami of the pubes, which were closely approximated to one another, there was still room to introduce the point of a finger. The uterus lay entirely above the brim of the pelvis. After the peritoneal cavity was opened the tetanically contracted corpus uteri forced itself through the abdominal wound. The form of the uterus was distinctly hour-glass. The macerated placenta lay in the upper, the squashed foetus in the lower segment of the uterus. During the recovery there was an ascending infection of the kidneys. During the three weeks' confinement the osteomalacia developed rapidly.

#### CÆSAREAN SECTION FOR THE FOURTH TIME.

CHARLES (*J. méd. de Bruxelles*, 1902, February 6) has successfully performed Cæsarean section for the fourth time on the same patient, a little woman with a rickety pelvis and a conjugata of only 6 cm. Both mother and child are healthy.

Of the three children previously delivered in the same way, two are alive and well, the third died of bronchitis at the age of 13 months.

### SYMPHYSEOTOMY.

BAR (*Centralb. f. Gyn.*, 1902, No. 28), in the first volume of his *Lçons de pathologie obstétrical*, discusses the treatment of abnormal labour in the rickety pelvis, and points out that in symphyseotomy there is a combination of various surgical and obstetrical measures which are liable to different accidents. Should labour have been in progress before the operation, it is desirable to hasten matters by artificial dilatation of the cervix, a proceeding not always easy or free from danger. In primiparæ the stretching of the vagina also must be considered. Bar holds the longitudinal incision to be the most suitable, and with it the hæmorrhage is usually not immoderate. The division of the cartilage is done after the finger has been passed behind the joint; it is seldom difficult and is not dangerous. The separation of the pubic bones may be ascertained by abducting the legs, and after a provisional tamponade, the labour may be allowed to go on spontaneously or, as Bar prefers, the extraction of the child may be undertaken by the forceps or version; each method has its advantages and disadvantages, which must be compared in each individual case. In the third stage bleeding is not uncommon, but when the placenta has come away the uterus and vagina can be plugged and the suture of the wound proceeded with. Bar thinks it unnecessary to suture the bones, merely stitches up the soft parts, and closes the wound without any drainage. The patient is then fitted with a special apparatus devised by him to fix the pelvis, or with a firm bandage, supported by an elastic one of rubber outside it, and this is not removed for four or five days.

The pelvis is always enlarged by symphyseotomy. The genital organs or neighbouring parts are not infrequently injured, yet such injuries are more often due to forcible delivery than to the symphyseotomy. For example, it is often impossible to preserve the bladder and urethra from injury, indeed, accidents to them have happened even when the labour has been spontaneous. Moreover, even where there is no direct injury to the bladder, troublesome and persistent incontinence frequently occurs. Very serious flooding also is by no means uncommon, but can always be

controlled by plugging; the danger of sepsis is most serious, and the mortality greater than that after any other obstetric operation. The mortality of symphyseotomy, for both mother and child, is extremely high; in 101 cases are recorded the deaths of twelve mothers and thirteen children; Pinard also lost twelve mothers out of 100. Moreover, the results to the mother in her after-life are not to be neglected; complete consolidation of the symphysis in the sense of *restitutio ad integrum* never occurs, yet the permanent enlargement of the pelvis is not such that spontaneous delivery is to be expected in a subsequent labour, and the risk attending a second symphyseotomy is greater than that of the first. Symphyseotomy is therefore a method of intervention that should never be adopted save in the case of a healthy woman in an aseptic environment.

#### REPEATED RUPTURE OF THE UTERUS.

KRIWSKI, St. Petersburg (*Monats. f. Geb. u. Gyn.*, Bd. xv., Heft 1), reports: In a sexipara of 33, as the head did not engage, the hand introduced into the uterus to turn felt the intestines, the child was extracted after perforation of the aftercoming head, and after delivery, examination detected a laceration of the cervix extending deeply into the parametric cellular tissue; the peritoneum seemed to be uninjured. There was a feverish child-bed, but no hæmorrhage. Eighteen months later, induced labour, near term; occipital position. As there was ascension of the Bandl's ring, preparation was made for Cæsarean section, but in the meantime the uterus ruptured and the posteriors of the child slipped into the abdomen. Laparotomy. The foetus was extracted through the tear which was in the anterior wall of the cervix; owing to the extensive lesion no attempt was made to stitch the tear, but the uterus was amputated. The child, but recently dead, weighed 3,000 grammes. The old tear could not be traced macroscopically or microscopically.

#### HYSTERECTOMY IN THE TREATMENT OF PUERPERAL SEPSIS.

OSTERLOH (*Münchener med. Wchns.*, 1902, No. 21), in the course of a communication to the Society for Natural Science and Hygiene, Dresden, said: The second subject selected for discussion at the International Congress at Rome



this year is "Hysterectomy in the Treatment of Puerperal Fever." This active surgical procedure was brought forward in 1886 by B. S. Schultze in a report to the Fifty-ninth Congress of German Naturalists, upon a case of amputation of the corpus uteri after laparotomy, on account of retention of the placenta and puerperal sepsis, in which the treatment of the stump was extraperitoneal and the patient recovered. Schultze laid down the indications for this procedure as follows: (1) There must be present in the uterus an active source of infection which cannot be successfully dealt with through the genital canal. (2) There must be no imminent source of infection elsewhere than in the uterus. (3) The existence of foci of septic infection, such as thromboses or emboli, already deposited more centrally, should be improbable.

From the paucity of publications on the subject in the next succeeding years, it seems that gynecologists, in the face of indications so narrowly limited, were loth to adopt this method of treatment; indeed, when the uterus alone is affected, the objection was always possible, that even septic endometritis is not necessarily incurable; on the other hand, while interference was postponed, the infection extended, and the prospects of the operation being successful decreased. Moreover, as in regard to other operations not based upon absolutely definite indications, the unhappy results in one or more cases led some, no doubt, to abstain from publication, and further trial of surgical treatment. Nevertheless, the number of published cases increased. Prochownic, who is to report on the subject at Rome, collected them in a comprehensive article on "The Indications for Surgical Treatment of the Diseased Uterus in Child-bed" (*Monats. f. Geb.*, Bd. vii., S. 310 and 480), and in a subsequent article, "On the Excision of the Septic Puerperal Uterus" (*ibid.*, Bd. ix., S. 756), recorded his own views and experience. For many years he had made bacteriological researches on the condition of the blood in diseased puerperal women, obtaining cultures therefrom generally in from twelve to fourteen, and at the latest within twenty-four hours; in all positive cases streptococci only were present, and all such cases were fatal, with some exceptions to be read in the original, during the puerperal disease; of the women in whose cases the results were negative, some had very severe general symptoms, but all except two (peritonitis purulenta due to invasion of streptococci from lacerations of the cervix and vagina, without



pyæmia) recovered. He sums up the result of his researches in the principle that hysterectomy of the septic puerperal uterus should depend on unremitting and exact clinical observation of the case assisted by blood culture. When pyæmia is evidently present, if the case be complicated by tumours, or putrefied ovular remains, and septic, perhaps criminal, abortion, hysterectomy is imperative, without wasting time, so valuable for the maternal life, in any other measures. Even in the absence, or presumed absence of such complications of pyæmia, the operation is justifiable if the disease is limited to the uterus.

Prochownic subsequently reported (*ibid.*, Bd. x., S. 639) five cases operated on, of which two died and three recovered.

Serum treatment has failed Prochownic even when there has been positive proof of streptococci in the blood.

Doederlein (*Ther. Monatsh.*, 1899, S. 639) also considers that in certain rare cases of infection of unusual type, the total extirpation of the infected uterus is justified and successful, but is quite aware of the difficulty of laying down precise indications. Of the two cases successfully so treated by himself, he admits that he cannot be sure that he would have lost these patients without operation.

In a dissertation by Zipperlen, seventy-four published cases are given with thirty-six recoveries and thirty-eight deaths, a mortality that is almost exactly that of the infected puerperæ admitted into the womens' wards of the Dresden City Hospital, not taking into consideration the form of the disease or method of treatment.

Another form of surgical treatment was discussed by v. Winckel (*Ther. Monatsh.*, 1895, S. 178), coeliotomy in diffuse purulent puerperal peritonitis. v. Winckel performed the operation on a woman discharged from the Klinik on the eleventh day after her confinement, and readmitted five days later with profuse purulent peritonitis; she recovered. In his concluding remarks he says, in regard to total extirpation: "To remove the uterus in every case, with the adnexa, simply because it has been the point of departure of the disease, and that before allowing time to see whether the condition of the patient is not materially improved by the removal of the copious exudation, is, in my opinion, all the more premature and irrational because we do not by any means remove all sources of danger in this way, but must leave numerous foci of pus in the abdominal cavity." In saying this v. Winckel opposes Boldt's views (*Amer. Jour. Obst.*, xxxi., No. 1, 1895).

Bumm (*Centralb. f. Gyn.*, 1902, No. 8), who has performed total extirpation of the septic uterus in five cases with three deaths, considers that the operation is only likely to be successful in case of injury that has happened during the induction of abortion, or during labour, owing to its leaving clean wounded surfaces, or in case of deeply penetrating uterine gangrene such as is caused by necrotic myomata, protracted retention of foetal parts or large pieces of the placenta. In septic peritonitis it has no chance of success unless the foci of pus are encapsuled. Phlegmon of the parametrium should not, he thinks, be cut into unless there is a large and accessible abscess cavity.

Everything yet published points to the difficulty of defining the indications for the operation; the number of cases for which it is suitable seems to be very limited, and the prospect of success very doubtful. Of course, that prospect is better when the operation is undertaken in time, before the formation of secondary foci of infection, but here the objection can always be raised that septic infection confined to the uterus can be cured without any radical surgical treatment; indeed we see not a few cases recover in which the infection has spread to various other organs. The mortality of puerperal sepsis is high—in the Dresden Frauenklinik 50 per cent.—and there is reason to fear lest it may be further increased by radical interference.

In the Obstetrical Society of Paris, June 20, 1901, DEMELIN and JEANNIN reported a case of supravaginal amputation of the uterus four days *post partum*; the patient survived the operation. In the discussion: BUDIN thought more was to be hoped for from energetic intrauterine treatment; and that total extirpation should only be considered in the exceptional and hardly to be diagnosed uterine abscess. TISSIER and PORAK also deprecated the proceeding. DEMELIN admitted exact diagnosis had not yet been arrived at, nevertheless, there were doubtless cases in which operation might save life.

#### ON THE ETIOLOGY OF PLACENTAL CYSTS.

VASMER (*Archiv. f. Gyn.*, Bd. lxvi., Heft 1) found in a mature placenta six larger and numerous microscopical cysts, all lying beneath the amnion and membrana chorii, the largest of the volume of 150 cmm. He was able to demonstrate that

they owed their origin to an abnormal proliferation of Langhans' layer of cells and the secondary degeneration of the proliferated cells.

#### FRACTURES OF THE CHILD'S CLAVICLE DURING NORMAL LABOUR.

RIETHER, Vienna (*Wiener kl. Wchns.*, 1902, No. 24), has, in the course of a year, collected sixty-five well-authenticated instances of fractures of the child's clavicle caused by obstetric assistance during labour, never violent, and always appropriate in the interest of the mother. The bone which was broken was generally the one that, in the delivery of the shoulders, had pressed upon the symphysis. The injury may be merely an infraction, or the ends of the bone may be wedged into one another, or be so little displaced, that unless special attention be directed towards it, the fracture may easily escape notice. Union is generally rapid with notable formation of callus. Suitable bandaging, which may very well be starched, should be applied.

#### INFUSION THROUGH THE UMBILICAL VEIN.

SCHUCKING, Pyrmont (*Centralb. f. Gynäk.*, 1902, No. 23), reports that in a cross presentation after protracted but successful version the child was asphyxiated; Schultze's swinging was tried without success, and the child was deeply cyanotic and without muscular reaction. Any further attempts at resuscitation by artificial respiration seemed hopeless. An injection of 30 grms. of a solution containing 0·5 per cent. of sodium fructosat and 0·7 per cent. of table salt distinctly strengthened the action of the child's heart, and a second injection of 20 grms. was immediately followed by one feeble spontaneous inspiration and then slowly by several others. The respiration was encouraged by the method of Sylvester for a short time, and the child, which weighed 3,200 grms., lived.

Schucking was led to adopt this treatment by the knowledge that the new-born can bear extreme pressure in the umbilical vein without detriment, and by the experiments he has already reported upon the physiological effects of alkaline saccharates and fructosates. As he has explained, the alkaline saccharates combine with the carbonic acid and form sugar

and sodium carbonate. He was fortunate in having the necessary apparatus, and the material for the solution, at hand.

[By experiments on cold- and warm-blooded animals, Schucking has proved that the continued action of the isolated washed-out heart does not depend on the contractile power stored in the cells of the muscular tissue, but upon elements of residual blood not washed away, and that the final death of the heart is due to carbonic acid. In solutions of the alkaline saccharates he found a harmless fluid which could combine with and remove the carbonic acid from the heart, and by a series of trials had found it much more efficient than any of the fluids hitherto used for hypodermic or intravenous infusion. It proved particularly beneficial in cardiac depression attending septic conditions, and in a case of extreme anæmia and debility consequent upon persistent menorrhagia.]

#### SPONTANEOUS HÆMORRHAGES OF THE NEW-BORN.

ABT, Chicago (*Amer. Med. Assoc.*, Saratoga, June, 1902), read a paper on the spontaneous hæmorrhages which affect the subcutaneous cellular tissue, the visceral cavities and mucous surfaces of the new-born. Generally met with beneath the skin near the umbilicus, or at the mouth, nose, ear, or intestine, their etiology, still obscure, was for the most part referred to congenital syphilis. In ten cases that had come under his own notice, three were undoubtedly subjects of that disease; two others might be attributed to septic processes, but it seemed probable that many factors might share in the etiology of these accidents. As regards treatment, internal medication had little effect, and local styptics, even suprarenal extract, not much more; gelatine seemed to act better than anything, but should be employed with caution for fear of ptomaine intoxication; on that account it was better to give gelatine orally than in subcutaneous injections. Chloride of calcium had been recommended as a prophylactic, and might be given to the mother during her pregnancy, and, in small doses, to the infant from its birth.

JACOBI, New York, said that the fact that these hæmorrhages were not so frequently met with as some forty years ago, was to be set down to the antiseptic precautions now taken during labour. In the new-born such hæmorrhages were favoured by the still imperfect structure of the vascular

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walls, by the fact that in the first few months of extrauterine life the blood contained less fibrin and salts and more hæmoglobin than in the adult, and that coagulation was therefore slower.

ABT concurred with Jacobi that the pathogenic factors of these hæmorrhages might be classified under three heads: infection, porosity of the vascular walls, and delayed coagulation of the blood.

## NOTES.

WE have with regret to record the deaths of the following distinguished obstetricians and gynæcologists:—

AT Ofen Pest, Professor THEODOR V. KECZMARCZKI, Director of the Gynæcolgical Clinic of the University, died on May 18, in his 61st year, after a very short illness.

AT Paris, Dr. EMILE BEAUDRON, Obstetric Physician to the Paris Hospitals, died on May 23, aged 38 years.

AT Vienna, Professor CARL BOEHM VON BOEHMERSHEIM, Director of the Vienna General Hospital, who wrote on "General and Gynæcological Surgery," aged 74.

AT Klausenbourg, Dr. J. MAIZNER, Obstetrical Professor to the Faculty of Medicine.

DR. JOSEPH EASTMANN, Professor of Gynæcology at the Central College of Physicians and Surgeons of Indianapolis.

PROFESSOR EDOARDO PORRO, Director of the Maternity, and Senator of the Kingdom of Italy, died at Milan on July 18, 1902. Born at Padua, September 17, 1842, he studied at the University there, and after serving under Garibaldi in 1866-7, became an assistant physician under Professor Pietro Lazzati, whom he succeeded as Director of the Obstetric School of Santa Catarina in 1871. In 1875 he was appointed Professor of Obstetrics in the University of Pavia, and in 1882 Director and Consultant-in-Chief of the Obstetric School of Milan. The work by which the operation associated with his name was introduced to the world, "Della Amputazione Utero-Ovario, come Complemente del Taglio Cesareo," appeared in 1876, was translated into many foreign languages, and led to the extensive adoption of his method. In 1891, on the twenty-fifth anniversary of the publication of this work, the gynæcologists and obstetricians of all countries united in presenting him with an address and a medal bearing the inscription "Sectio Cæsarea salubrior instituta." The

immediate cause of his death, which is universally deplored, was an attack of pulmonary œdema following nephritis, itself due to infection contracted in the course of operating. His death, as his life, was thus a sacrifice to professional duty.

AT Freiburg, Professor ALFRED HEGAR, M.D., celebrated recently the 50th anniversary of his doctorate.

AT Heidelberg, Dr. F. A. KEHRER, the Professor of Obstetrics and Gynæcology, retires on October 1 of this year with the title of Geheim-Rath. Professor Dr. A. EDLER v. ROSTHORN, of Gratz, has been appointed as Professor of Obstetrics and Gynæcology to succeed Herr Geheim-Rath Dr. KEHRER.

DR. ROBERT FARNAN has been appointed to the post of Gynæcologist to the Mater Misericordiæ Hospital, Dublin, rendered vacant by the death of Dr. More Madden.

DR. SEBASTIAN RECASENS GEROL has been appointed Professor of Obstetrics and Gynæcology in the Faculty of Medicine at Madrid.

DR. TESSON has been appointed, for the usual nine years, to the Chairs of Pathology and Clinical Surgery and Obstetrics at Angers.

DR. LEOPOLD LANDAU (Berlin), Dr. HEINRICH PLETZER (Bonn), and Dr. HERMANN WENDELSTADT (Bonn), have been appointed Extraordinary Professors of Obstetrics and Gynæcology.

DR. PIER LUIGI CARDINI, Assistant to Professor G. Calderini (Bologna), and Dr. WILHELM LATZKO (Vienna), have been appointed *Privat-Docenten* of Obstetrics and Gynæcology.

AT Nuernberg, on July 12, a Franconian Society for Obstetrics and Gynæcology was founded with the view of advancing the knowledge of these two branches of medical science, especially among general practitioners. It was decided to have four meetings in the year, alternately at Wuerzburg, Erlangen, Nuernberg, and Bamberg. HOFMEIER (Wuerzburg) and GESSNER (Erlangen), were elected Presidents, and FLATAU (Nuernberg) Secretary.

A PRACTITIONER in Magdeburg was recently condemned to five months' imprisonment for culpable malpractice in five cases by the introduction of a special intrauterine pessary

devised by him, and declared to be a sure preventative against the permanent settlement of the ovum in the womb. He admitted having employed 800 of these instruments (*Centralb. f. Gynäk.*, 1902, No. 23). An electro-plated stem, 7 cm. long and suitably curved, ended in a pair of springs which, when released after the introduction of the instrument, sprang apart and prevented it from falling out of the uterus. Though called an obturator it was not one, but merely a means of inducing abortion.

*American Gynæcology*, a new journal to begin publication in July, will be devoted to gynæcology, abdominal surgery, and obstetrics, and controlled by a company consisting solely of members of the profession interested in its special field. It will be under the editorial management of J. WESLEY BOVEE, M.D., of Washington, D.C.; CHARLES JEWETT, M.D., of New York; CHARLES P. NOBLE, M.D., of Philadelphia; REUBEN PETERSON, M.D., of Ann Arbor, Mich.; and J. WHITRIDGE WILLIAMS, M.D., of Baltimore. The office of publication will be No. 1, Madison Avenue, New York.

FOURTEENTH INTERNATIONAL CONGRESS, MADRID, APRIL 23-30, 1903. SECTION XIII. *Obstetrics and Gynæcology*.—The following reports are announced: (1) "The Indications for Hysterectomy in Acute Puerperal Infection," by CORTIGUERA (Santander), and by PINARD (Paris). (2) "The Treatment of Placenta Previa," by CANDELA (Valencia), by PESTALOZZA (Florence), and by LEOPOLD (Dresden). (3) "The Pathogenesis and Treatment of Chronic Pelvic Cellulitis and Peritonitis," by GIL (Malaga), and DOLÉRIS (Paris). (4) "Indications and Results of Opothorapy in Gynæcology," by JAYLE (Paris). (5) "The Conservative Surgery of Adnexal Disease," by FARGAS (Barcelona), by TREUB (Amsterdam), by PALMER DUDLEY (New York), and MANGIAGALLI (Pavia). And a paper by SALCEDO Y GINESTAL, "Induction of Abortion and Premature Labour in their Relations to Natural Rights, Religion, Medicine, and Criminal Law."



## SUMMARY OF GYNÆCOLOGY, INCLUDING OBSTETRICS, NOVEMBER, 1902.

### GYNÆCOLOGY IN LUNATIC ASYLUMS.

HALL (*Amer. Journ. Gyn. Surg.*, August, 1902) finds that mental derangement is associated with pelvic disorders more frequently than with any other disease outside the large nerve centres. A thorough investigation of the conditions in the pelvis will frequently be rewarded by finding in local disease there, the source of the irritation to which the abnormal mental condition is due. Of insane women less than 10 per cent. have normal pelvic organs after the removal of their physical disease, and at least 20 per cent. of the chronic cases recover, and 15 per cent. are improved as to their mental condition. This statement he considers well within the mark, as his own cases show 39 per cent. cured and 30 per cent. improved.

BACON, Chicago (*Monats. f. Geb. u. Gyn.*, 1902, September), writes: Dorlitt, reporting upon 276 cases in the Iowa Hospital for the Insane, found hereditary predisposition in 47 per cent.; pelvic affections were frequently present, and were undoubtedly one of the factors in the mental disease, but did not constitute the only one, nor was any special psychosis connected with pelvic trouble. The intensity of the pelvic disease bore no constant proportion to that of the mental disorder. Dorlitt thought that abdominal affections in the insane should be treated in the same way as in the mentally normal. In general, surgical operations were unfavourable; the best results of surgical treatment being obtained in menstrual disorders and hysteria.

Moore, in the North Dakota Hospital for the Insane, found among 154 cases submitted to gynæcological examination, only twenty-seven normal; there were backward displacements in 77 per cent. and the perineum had been lacerated in 66 per cent. Good results generally had

followed in eighteen operations in cases of menstrual disorders and torn perineum, but in some cases no good at all.

Henry has reported 16 operations in insane patients, of whom 10 were cured and 3 relieved; 1 died. He considers mental disease to be often due to pelvic affections.

#### THE CONNECTION BETWEEN NERVOUS DISEASES AND DISORDERS OF THE FEMALE GENITAL ORGANS.

THEILHABER, Munich (Graefe's *Samml. swangloser Abhandl.*, Bd. iv., Hft. 6), concludes that nervous diseases may cause certain disorders in the genital organs, namely: (1) Amenorrhœa is very commonly present in psychoses (when the mental condition begins to improve the menses often return with their normal regularity); also in exophthalmic goitre, chorea, myxoedema, &c., and especially in hysteria. When the nervous affection is the cause of the amenorrhœa, no local treatment should be attempted. (2) Dysmenorrhœa, which, in Theilhaber's opinion, is generally due to spasm of the sphincter of the internal os. (3) Menorrhagia of nervous origin is not uncommon in patients in whom the uterine musculosa is insufficiently developed. (4) Periodically returning leucorrhœa, disappearing again after the restoration of the mental balance. (5) Atrophy of the uterus, ovaries, vagina, labia, and mammæ as a result of diminution of the pressure of the blood. (6) Descent of the womb. (7) Retroflexion (following atrophy). (8) Anæsthesia of the external genitals and of the vaginal mucosa.

On the other hand, diseases of the nervous system may depend on disorders of the genital organs: (1) Neuroses and psychoses may be induced by puberty or the menopause. (2) Nervous affections, such as migraine, mental depression, and facial neuralgia or psychoses, may be due to menstruation. (3) Neuralgic pains in the back or sacrum may be caused by self-abuse, or by coitus reservatus, or precipitate ejaculation by the male. (4) Severe neurasthenic symptoms may attend persistent genital disorders which are associated with violent pain or with fever; or with (5) persistent or profuse hæmorrhage. (6) Hypochondria may arise from anxiety as to recovery or fear of incurable disease. (7) Pregnancy (by change in the composition of the blood and by the accumulation of toxines), (8) delirium during or after labour, puerperal psychoses, (9) compression of the pelvic nerves, or (10) inflammation of the genital organs may cause disease

of the nervous system. (11) Neuralgia, paresis and paralysis may occur after confinement; (12) or puerperal and post-operative neuroses and psychoses. (13) We meet with infectious neuritis from gonorrhoea or syphilis. (14) Genital carcinoma may attack the nerves. (15) Relaxation of the sacro-iliac symphysis may cause nervous pain. (16) Reflex neuroses are common.

### THE CONSERVATIVE TREATMENT OF THE DISEASES OF WOMEN.

EISENBERG, Vienna (*Muench. med. Wchns.*, 1902, No. 40), speaking at the recent meeting of German naturalists and physicians at Carlsbad, said that the brilliant results of operative gynæcology had led to an improper extension of the indications for surgical intervention in various directions, but that of late there had been a decided reaction in favour of the conservative treatment of such of the diseases of women as were amenable to it. He pointed out that vaporisation of the uterine mucosa had to a great extent limited the indications for total hysterectomy; that, in chronic inflammatory processes in the small pelvis, prolonged hot irrigation would bring about the absorption of exudates, either intra- or extra-peritoneal; and recommended as much as from 30 to 40 litres for an irrigation of the vagina or rectum. The exudation, however, must not be recent, and there must be no fever, if unpleasant accidents are to be avoided. To decide whether an exudation be recent or not, investigation of the blood in regard to the number of leucocytes is of importance, as the number is increased in the presence of recent exudation, and if such be the case hot water douches should not be used. The best results are given by post-puerperal collections of pus, but even in perityphlitic exudation the treatment may be successful; a very large perityphlitic exudation has disappeared under it.

In chronic disease of the adnexa, also, one may have very satisfactory results provided that the tube does not contain any fluid. Should there be any pus in the tubes the use of hot water is absolutely dangerous. Fever and pain may return and new exudation take place. The presence of a salpingitis therefore contraindicates prolonged irrigation. On the other hand, one sees good results in chronic oophoritis, peri-oophoritis and salpingitis, and the improvement in the subjective symptoms is particularly noticeable. In chronic

perimetritis and parametritis, and also in case of retro-flexio fixata, vaginal douching is a good preparation for treatment by massage. The improvement in many cases is as rapid as after operative measures. Anatomically the women are not cured, but they are relieved from all suffering. The irrigation should each time last from ten to twenty-five minutes.

#### LYMPHANGIECTASIS OF THE VULVA.

DURET (*Lille, Jour. Sci. Méd.*, 1902, May 10, 17) met with a case of lymphangiectasis of the vulva in a girl of 17, in whom several incisions had been made for phlegmonous oedema of the part. There were varices, due to obstruction of the lymph channels, and lymphorrhagia, infection and cachexia, but she recovered. Reviewing the case and literature of the subject, Duret concludes that a form of lymphangiectasis resembling that met with in tropical countries may occur, without the presence of filaria, owing to obstruction of the lymph circulation, perhaps by an obliterating adeno-lymphangitis due to streptococci. The lymph glands and channels may become dilated beyond the obstruction, rupture spontaneously and thus cause lymphorrhagia, with consequent anæmia and cachexia. This is especially likely in the lower extremities and external genitalia, and in the vulva was naturally accompanied by profound infection.

#### RUPTURE OF THE VAGINA WITH VOLUMINOUS PROLAPSE OF THE BOWEL.

ROMMEL (*Deutsche Zeits. f. Chir.*, Band lxiv., No. 7) reports a case of rupture of the vagina in a woman of 38, occasioned by the lifting of a heavy kettle; there was prolapse of the small intestine to the size of a man's head, one convolution being torn away from the mesentery. The prolapse was with difficulty reposed, but imperfectly so, and the woman died. At the autopsy, a hole, 4 cm. in diameter, was found in the vagina.

#### ON THE VAGINAL USE OF STERILE PRESERVED YEAST.

ALBERT, Dresden (*Centralb. f. Gyn.*, 1902, No. 33), last year claimed that in "Dauerhefe," a sterile powder, containing no living yeast-cells, but retaining its power of decomposing sugar into alcohol and carbonic acid, we had a substance against the vaginal use of which no objections could be

raised such as those made against the fresh beer yeast recommended in 1899 by Landau (*v. ante*, vol. xv., p. 304). He now gives a most favourable report of the results of the treatment of inflammatory affections of the vagina and cervix, particularly in obstinate leucorrhœa and erosions of the portio, with this substance. The vagina is dilated by a spiral of about the lumen of the middle finger, made from a celluloid ring, and is filled with a mixture of the dried yeast, sugar and water in the proportion of 1:1:5; this is retained by a plug for several hours, during which the woman is kept in bed, but is withdrawn before fermentation has ceased, and the vagina is then washed out with sterile water. For the subsequent treatment of the uterine cavity he warmly recommends the application of a 30 to 50 per cent. solution of formalin as advised by Menge (*v. ante*, vol. xvii., p. 64). He has also found this method of using yeast a most excellent way of disinfecting the vagina before operations. The patient is spared the prolonged and generally very distressing measures otherwise necessary on the eve of a laparotomy, and as regards vaginal operations it has the great advantage of leaving the surface in a normal condition, the usual mode of disinfection causing more or less destruction of the epithelium and a hyperæmia resulting in a loss of blood that may be hurtful to the patient and disconcerting to the operator. The results in sixty-two laparotomies and fifty-three vaginal operations were better than under the older methods, more especially in the colporrhaphies.

#### ENDOMETRITIS AND ITS TREATMENT.

SMYLY, Dublin (*Glasgow Med. Jour.*, 1902, vol. lvii., p. 321), classifies cases of endometritis according to their being characterised by the presence or absence of micro-organisms. In the former category he includes the septic or saprophytic, the gonorrhœal, syphilitic (!), diphtheritic, and tubercular forms; in the latter, the post-puerperal, the post-gonorrhœal, the interstitial, glandular, hypertrophic or fungous, decidual, dysmenorrhœal, plastic or membranous forms, and ichthyosis uteri. In unmarried women, unless serious hæmorrhage or dysmenorrhœa be present, most cases may be let alone; but in married women, endometritis is apt to lead to sterility or abortion, to various complications, such as hydrorrhœa, anomalies, or anomalous attachment, or premature separation, of the placenta, or, through metritis, to uterine inertia and *post partum* or even secondary hæmor-

rhage. In married women, therefore, even slight symptoms of endometritis require active treatment. In young unmarried women leucorrhœa generally depends upon constitutional causes, and with few exceptions is best treated by general remedies.

In septic endometritis, though the micro-organisms may have already invaded the tissues so deeply that their complete removal is no longer possible, and though Schimmelbusch has shown that it is impossible to cleanse even a freshly infected wound, Smyly believes that the amount of septic material present is an important element in the ultimate result, that even partial removal of infectious matter is most desirable, and that clinical experience has proved that energetic local disinfection has yielded the best results. He therefore recommends irrigation through a Bozemann's catheter with one of the less dangerous antiseptics (chinosol, lysol, &c.); if the temperature remains high, plugging the cavity with iodoform gauze, renewed after twelve hours, and if this does not succeed and there is a possibility of portions of placenta or membrane being retained, exploration of the cavity and the removal of such with the finger. He deems the sharp curette a very dangerous instrument for these cases, but finds a broad blunt instrument, such as Rheinstædter's flushing curette, of great value when the putrid material cannot be dislodged by the finger. The last resource, extirpation of the uterus, only justifiable when the source of the disease is in, and only removable with, the uterus, has undoubtedly saved life, when a putrid placenta has become incarcerated in the womb.

As regards the use of the curette in abortion, Smyly concurs with Chrobak that it should always be controlled by the finger and limited to the removal of matter that cannot be detached by the finger unaided; and that it is better, if possible, to defer its use till involution is completed. But in the treatment of chronic endometritis he gives to the instrument the first place, as simple, safe and efficient, and the only means of arriving at an exact diagnosis. It is more efficient where hæmorrhage is the chief symptom (post-puerperal and fungous endometritis), than in the relief of leucorrhœa (interstitial form) or pain (dysmenorrhœa). But unskilfully employed it may perforate the uterus or lead to the partial or complete obliteration of its cavity.

Where leucorrhœa is the prominent symptom, or where the curette has failed, a powerful caustic is required, and

perhaps chloride of zinc is the most certain. According to Menge the ideal caustic in endometritis is formalin; it is corrosive enough without being dangerous, and is a powerful antiseptic. Since reading Menge's article (*v. ante*, vol. xvii., p. 64), Smyly has employed this drug in the strength and manner recommended by Menge, with good results except for the intense temporary pain to which it gives rise. The application, however, need not be repeated for about a fortnight. Smyly deprecates the introduction of caustics into the womb by Braun's syringe or in the solid form, nor does he approve of electrical methods. As regards the use of steam (atmocausis and zestocausis), he considers that it may render hysterectomy less frequently necessary in the obstinate hæmorrhages and catarrh affecting women past childbearing, and is hopeful as regards its use in younger women, if accurate dosage can be secured.

#### INTRAUTERINE INJECTIONS OF PICRIC ACID IN BLNORRHAGIC ENDOMETRITIS.

SIREDEY (*Presse Médicale*, 1902, July) was induced by the good results obtained by De Brun in the male subject, to try the effects of picric acid in blenorrhagic endometritis. A saturated solution, 12 per mille, prepared hot and allowed to cool in a closed vessel and thus perfectly aseptic, was applied in the following way: The patient was placed in the usual position for a gynæcological examination, and submitted to prolonged vaginal irrigation with sterilised water; a speculum having been introduced, the cervical canal was carefully cleansed with a swab of cotton-wool soaked in iodoformed ether. A Braun's syringe of about 4 cm. capacity was then filled with the solution, the canula passed gently into the uterus until it touched the fundus, and then withdrawn for a few millimetres and about one half (2 cm.) of the contents of the syringe was injected into the uterus; the vagina was afterwards plugged with iodoform gauze, which was removed the following day. This proceeding was very easy of execution and caused little pain. He recommends it to be repeated twice a week and supplemented by the daily irrigation of the vagina with 4 or 5 litres of hot solution of permanganate of potash (0.5 per cent.). The number of his cases so treated is not yet more than allows him to affirm that these intrauterine injections of picric acid have a notable analgesic effect, as in all cases the pain and sense of weight in the hypogastrium rapidly declined. More-



over, the purulent or mucopurulent secretion soon changed and became merely mucous. The gonococci disappeared from the discharge the more rapidly the earlier the injections were begun. There was no caustic action, nor any sign of stenosis of the internal or external os.

#### ICTHYOL IN DISEASES OF THE GENITAL MUCOSA.

GOLDMANN, Vienna (*Der Frauenarzt*, 1902, July 18), strongly advocates the use of a 10 per cent. mixture of ichthyol in vasogen in many gynæcological diseases, in colpitis, whether due to gonorrhœa or the misuse of pessaries, or secondary to uterine disease; in endometritis, leucorrhœa or erosions of the portio. In chronic parametritis and chronic perimetritis, when all signs of acute inflammation have passed away, its resorbtive and analgesic effects have proved excellent, and it is also a good hæmostatic in the serious hæmorrhages which almost invariably occur in these affections. He refers to articles already published by Breitenfeld and v. Oswiecimski confirming the beneficial action of this drug in some forms of dysmenorrhœa, and promises a further account of its use in inflammatory and hysterical cases. He affirms that ichthyol is better and more completely dissolved in vasogen than in glycerine, and therefore better and more quickly absorbed. The 10 per cent. ichthyol vasogen does not cause the sensation of burning and itching to which glycerine gives rise by its affinity for water. He employs tampons impregnated with the ichthyol vasogen, which are generally left *in situ* for twelve hours, with warm irrigations, painful cleanliness, and in some cases of chronic disease, inunction, or compresses, of the same mixture, and all other therapeutical measures indicated by the symptoms.

Ten per cent. ichthyol vasogen has been extensively used, and found its place in skin diseases. The disinfecting action of the ichthyol is especially valuable in all cases of disease of the genital mucosa accompanied by profuse and foul discharge. It seems, however, probable that the affinity of glycerine for water may have a special therapeutic effect of its own that for certain cases (exudations, &c.) makes it a better vehicle than vasogen.

#### PARAUTERINE HÆMORRHAGES NOT VICARIOUS MENSTRUATION.

ENGSTRÖM (*Mitteilungen aus s. Klinik.*, Bd. iv., H. 2) has never seen and cannot believe in vicarious menstruation.



He points out that under certain circumstances, in direct connection with menstruation, hæmorrhages may occur from organs and tissues in the immediate neighbourhood of the uterus; these parauterine menstrual bleedings, as he calls them, have been insufficiently studied and improperly explained; they arise from the tubes (bleedings noticed from tubal stumps after operations), or from abdominal fistulæ—but may happen in the ovarian tissue or even in Douglas, and though they follow the menstrual type, they have nought to do with the catamenia, but are due to pathological conditions and results of the præmenstrual influx of blood to the sexual organs; they cease when normal conditions are restored. They are met with after salpingotomy and in chronic inflammation of the pelvic organs. Engström incidentally proves, from his operative experience, that the tubal mucosa does not contribute to the menstrual hæmorrhage.

#### DISPLACEMENT OF THE GRAVID UTERUS.

ALLWOOD, Jamaica (*Brit. Med. Journ.*, 1902, September 13), reports an extraordinary displacement of the gravid uterus. The patient, a young primipara, stated that she was straining at stool when she felt her "body come down." There was a large perineal tumour over which the skin was tightly stretched like a thin membrane. The vulva was oedematous and the cervix uteri—also oedematous—was protruded through the lower part, while the upper part was occupied by a prolapsed portion of bladder. There was prolapse of the rectum and the fundus uteri, covered by the anterior wall of rectum, protruded through the anus, which was widely distended. The uterus had therefore prolapsed and, describing more than a quarter of a circle, occupied a horizontal position parallel with the plane of the perineum. The patient was chloroformed and the uterus replaced with great difficulty, the hand having to pass up into the rectum to carry the fundus uteri over the sacral promontory. In order to keep it in place the vagina and rectum had to be packed with lint and the legs tied together. When reduction was effected it was found that she was about four months pregnant. She did not abort.

#### SHORTENING OF THE ROUND LIGAMENTS.

ALEXANDER (*Med., Surg. and Path. Reports, R. Southern Hosp., Liverpool*, 1901) has now practised his operation for

twenty-one years, and during the last two performed it in 43 cases, mostly chronic sufferers from old retroflexions who have failed to obtain relief from pessary or other methods of treatment.

Finding the ligaments, in his experience, has not been difficult. If the clear glistening aponeurosis of the external oblique be cut down upon outside the abdominal external ring, it cannot be mistaken, and by shifting the superjacent tissues the ring and canal can be exposed. If then the ligament be not seen lying over the lower pillar, the transverse fibres crossing the ring should be divided and the ligament and some fatty tissue will bulge out; the nerve lying along it should be cut through, and after the ligament has been seized in pressure forceps and exposed by blunt dissection, it may be pulled out gently with the fingers.

The cases in which the ligament is too frail to be drawn out are quite exceptional, but Alexander met recently with two on the same day; in one, a woman with general fatty degeneration, each ligament broke off hopelessly on the slightest tension in the other, the right ligament, after being pulled out, snapped off just as he was about to stitch it.

In old retroflexions that have existed for years and for which pessary treatment has failed or become unbearable, it is essential that the uterus should be straightened before the operation, and kept in position till healing is complete. Alexander has always recommended the introduction of a stem pessary, and uses, as convenient, a galvanic stem supported on a Hodge. The ordinary objections to the stem do not apply, as it is only retained for the three weeks the patient is in bed on her back. The Hodge keeps the cervix well back in the pelvis, and thus promotes the shortening of the retrouterine ligaments and, by improving the circulation, the diminution of an enlarged fundus. It is worn for two or three months or longer unless its removal is desired by the patient who should, if possible, be seen one week after it is taken away, and subsequently once every month, that if at all necessary the Hodge may be re-inserted and retained for some months longer. Alexander believes that he has in this way prevented a threatened recurrence. The danger of such is increased by enlargement of the fundus due to menstrual disturbance, and especially by miscarriage, which indeed is more dangerous than labour at term; the idea that pregnancy would upset the results of the operation has been disproved by experience.

The original operation of pulling the uterus into position by traction upon the round ligaments applied through the external inguinal ring is the method still adopted by Alexander when the uterus is movable, and his belief in its simplicity and effectiveness is as firm as ever. It may be contraindicated by cystic ovaries, inflammatory conditions or adhesions. He never recommended his operation for an adherent uterus, but the number of cases in which adhesions have stood in the way has not, in his experience, been many, comparatively not so great as in that of other operators. He has found lately that by performing a preliminary vaginal coeliotomy to explore the pelvis and separate adhesions, and bring the uterus into anteversion, he has been able to extend the field for his operation to almost all displacements, the vagina being packed with gauze, after the stem has been inserted, to keep the cervix well backwards while the ligaments are shortened. Though this lengthens the procedure it does not seem to add to the gravity of the older operation. Brief notes of the controlled results of some cases taken at random from the hospital records attest the value of the operation.

LE ROY BROUN, New York (*Med. Record*, 1902, February 22), reports that in the course of eight years Alexander's operation has been performed in the Women's Hospital in New York 230 times for retroflexion; there were two deaths, neither of which could in any way be attributed to the operation. He gives as preliminary conditions for the operation: that the uterus should be free from adhesions; that it should be easily brought into the normal position; that the bladder should be completely empty, and that as long as the patient lies at rest on the examination couch, the womb should show no inclination to relapse. Any lacerations of the cervix or perineum should be repaired at the same sitting.

The cases have as far as possible been kept under observation, but only in one instance is the retroflexion known to have recurred; the reason for this mishap was evidently the exceptional use of catgut to secure the ligaments; in every other case fine silk was employed. Broun, differing from Alexander, says that the external spermatic branch of the genito-crural nerve must not be cut through; he insists that it must be found and isolated and not included in the stitches, or it will cause neuralgia in the cicatrix.

The operation has no effect whatever upon subsequent

pregnancy and labour, or upon the enlargement of the uterus and retraction of the ligaments involved therein; indeed, by inadvertence, one operation was done upon a woman in the second month of pregnancy, and the ligaments were found to be twice as large as usual, nevertheless the pregnancy and labour passed off quite regularly and the uterus remained in anteflexion.

Any disposition to hernia after the operation can, according to Broun, be prevented by the following procedure: (1) In order that the peritoneum, fascia transversalis and fat may attach themselves firmly to the inner ring, one must, in the first place, strip the peritoneal investment of the drawn out ligament as far back as possible, and afterwards allow the ligament to slip back a little; the tissues drawn into the inner ring in the shape of a cone will then attach themselves firmly to its margin. (2) In regard to the outer ring: the ligament must be seized and drawn out after a simple incision without any injury of the aponeurosis of the external oblique (*cf.* Alexander *supra*). If much time is spent in searching for the ligament the floor of the external ring is loosened. Should one be unable to bring the displaced tissues into accurate apposition again, it is better to proceed to a Bassini operation at once.

#### TUMOUR OF THE ROUND LIGAMENT.

LICHTENSTERN and HERMANN (*Monats. f. Geb. u. Gyn.* 1902, Bd. xv., S. 414) report a case probably unique. A woman of 23, one year after a normal pregnancy and labour, and after a violent exertion, noticed the appearance of a tumour, the size of a hazel nut, in her right groin. At the end of four days the tumour had got larger and more painful: she was admitted into hospital and was found to have a smooth, solid, non-transparent swelling in her right groin as large as a fist, tender on pressure and cylindrical in shape: it extended from the labium majus to the internal inguinal ring on the same side, seeming to pass into the latter and be lost in the abdomen. Apart from some varices, such as existed over the rest of the abdominal wall, the skin over the tumour was normal. The genitalia were sound, but on palpation the right round ligament appeared to be somewhat thickened. The tumour was taken to be a strangled omental hernia.

At the operation, on dissection near the outer end of

the tumour, a small cyst was found which burst, and near the inner end a small abscess containing some drops of pus. As the tumour was found to extend through the internal inguinal ring, the ring was split, and on entering the abdomen the dissected mass proved to be merely the inguinal portion of the round ligament greatly thickened. The adnexa were sound on both sides. The round ligament was amputated at its uterine end, and the appendix was also taken away, though it seemed to be normal.

The swollen portion of the ligament was 8 cms. long and 3 thick, and consisted essentially of connective tissue, but contained numerous blood-vessels. It is to be supposed that under the influence of pregnancy, these vessels, like those of the abdominal wall, became more or less varicose; that one finally burst and formed a hæmatoma which afterwards suppurated.

#### HYSTERECTOMY BY DOEDERLEIN'S METHOD.

V. MARSACHT (*Wiener kl. Wchns.*, 1902, No. 12) reports on his experiences of Doederlein's method of extirpating the carcinomatous or myomatous uterus; in it the posterior wall of the cervix is divided, and an opening having been made into Douglas' pouch, the division is continued along the posterior wall of the uterus and, after the organ has been drawn out of the vulva, on and through the anterior wall also; in this proceeding the bladder generally is detached, and that being done an incision is made round the vaginal portion and the cervix set free. In one of his cases, a nullipara, there was a myoma reaching nearly up to the umbilicus, but with the help of Schuchardt's incision, the largest circumference of the tumour was forced through the pelvic inlet by external pressure, and the remainder of the operation proved comparatively easy. He draws the following conclusions: Doederlein's method cannot be adopted in all cases of uterine carcinoma, especially not when the posterior wall of the uterus is degenerated; it does not, as a rule, protect the field of operation from being fouled by the uterine secretions; it has the great advantage of saving the time usually taken in separating the bladder, and of making the care of the ligaments a much easier matter than any other method; it is to be particularly recommended for the extirpation of the myomatous uterus, as tumours of even very large dimensions can be easily depressed through the posterior vaginal vault, and it will probably be adopted for the extirpation of the uterus during pregnancy or soon after delivery.

**HÆMOSTASIS OF THE BROAD LIGAMENT.**

NEWMAN, Chicago (*Amer. Med.*, June 21, 1902), at the Saratoga meeting of the American Medical Association, said that the use of absorbable ligatures and later of clamps, angiotribs, &c., indicated a tendency to do away with ligatures in pelvic surgery. The aim in any method of hæmostasis is to prevent hæmorrhage, sepsis, injury to the parts, and to leave as little foreign material as possible. Newman's experience with the angiotribe or crushing forceps, in operations on the broad ligament, had been gratifying. At times he reinforced the clamp by applying ligatures to the principal vessels before the clamp was removed. Some of the advantages of this method were: Complete hæmostasis, inability of the arteries to contract and form hæmatomas, no strangulated stump to slough, the formation of multiple thrombi to occlude the vessels, a minimum amount of foreign matter left behind, lessening of shock and shortening of convalescence.

In the discussion: DUDLEY (New York) said that the principal use of the crushing instrument seemed to be the prevention of hæmorrhage, but its effects on nerves and lymphatics must be considered. Statistics and personal knowledge of cases showed that patients after such operations died of tetanus and of shock. Secondary hæmorrhage also occurred in as many cases as after simple ligation. Ligating vessels and closing peritoneum over the stump was better surgery than crushing the tissue. If that method is to prevent the danger of sepsis from ligatures, why use them in addition? GOLDSPOHN (Chicago) said that the angiotribe was uncertain in thinning the tissue and gave rise to some danger of tearing off the tissue to be crushed. Its use with ligatures prolonged the time of operation.

**OPERATIONS FOR FISTULÆ AFTER HYSTERECTOMY.**

KELLY (*Bull. Johns Hopkins Hosp.*, 1902, April) has adopted the following method of operating for vesico-vaginal fistulæ after hysterectomy, which prove difficult of access on account of their distance from the vulva. The patient is placed in the knee-chest position, and after the vagina has been cleansed, Kelly makes a small incision in the transverse cicatrix in the vaginal vault, opening the peritoneal cavity so that, on the admission of air, the intestines fall out of the way. The opening is then enlarged, relieving the tension upon the bladder, and a large pad of gauze, with

string attached is, for protection, introduced into the peritoneal cavity. He then separates the bladder from the vaginal wall by splitting the edges of the fistula, sews up the muscularis of the bladder with a series of buried sutures of fine silk or catgut, and unites the vaginal wall with fine silkworm gut, taking great care not to leave any cavity between it and the muscularis. The gauze pad is then withdrawn, the air is displaced by injecting saline solution into the peritoneal cavity, and the patient turned into the dorsal position. The vaginal vault is then partially closed by sutures at each angle, between which a narrow gauze drain is inserted, and a drain is also placed in the vagina. He recommends that a catheter should be retained in the urethra for from seven to nine days after the operation.

#### IMPLANTATION OF A DIVIDED URETER INTO THE SIGMOID FLEXURE.

JACOBS, Brussels (*Bull. Soc. Belg. Gyn. Obstet.*, tome xiii., No. 1, 1902), records a case of a woman, aged 51, in whom in performing hysterectomy for cancer of the cervix he divided the right ureter. As the proximal end was too short to implant in the bladder, he made a small button-hole in the right side of the upper part of the sigmoid flexure, into which he passed three centimetres of the divided ureter, fixed it there by a series of interrupted uretero-intestinal sutures of fine silk, and afterwards covered it with a flap of peritoneum. The patient's temperature did not rise above 37.8°. During the first three days there was no intestinal evacuation, but the urine from the bladder was sufficient in quantity and normal. On the fourth day a semiliquid motion was provoked by an enema; on the fifth a dose of castor oil was followed by eight liquid motions, and there were two such on every day till the twenty-first, when she left the hospital. Subsequent information had shown that the patient had not been inconvenienced by the persistent daily liquid evacuations to at all the same extent as she had been, previous to the operation, by habitual constipation.

P. Z. H.

#### URETER WOUNDED IN TAPPING AN ABSCESS PER VAGINAM.

JACOBS (*Ibid.*) also relates a case in which, after passing a trocar into a pelvic abscess *per vaginam*, and afterwards enlarging the opening to allow of proper drainage, nothing



unusual was observed until the fourth day; the gauze dressing was then found impregnated with urine; urine also flowed from the abscess cavity. The passing of a catheter showed that the bladder was well filled, so that a ureter must have been wounded by the trocar. No operation was performed, but the woman was kept under close observation. For two or three weeks a good deal of urine escaped by the vagina, but micturition was, though diminished in quantity, otherwise normal. The urine passed by the vagina became less and less, and about two months after the operation entirely ceased, and the patient was perfectly well.

P. Z. H.

#### URETERAL STRICTURES AND INJURIES OF THE URETER.

KELLY, Baltimore (*Amer. Med.*, June 21, 1902), said, at the Saratoga Meeting of the American Medical Association, that it would be better to speak of "hydronephrosis" as "ureteral stricture" in order to fix the attention upon the condition of the canal. Kidneys had been removed for lesions which had been results and in no way the cause of the hydronephrosis. To show the advantage of preserving even a damaged kidney, he gave the details of two cases in which the patients lived for several years with only one kidney, and that damaged by infection. Strictures were generally situated at the lower end of the ureter, and were generally the result of inflammation, in the majority of cases due to the tubercle bacillus. The diagnosis did not depend on any particular symptom, but upon direct examination. A distended ureter might of course be sometimes felt through the vagina or air-distended rectum, but it was upon cystoscopic examination and catheterisation that we had to rely for absolute diagnosis. If there were difficulty in introducing the catheter, and its passage were followed by an immediate and steady flow of urine, that was abnormal. The bite of the stricture upon the catheter might be felt. To ascertain its length, the distance to its lower end was determined and the catheter then passed through the stricture. Fluid was introduced, the patient placed upright, and the catheter then withdrawn till the fluid ceased to flow, when the portion in the canal would approximately give the upper limit of the stricture. Treatment might be palliative or radical, the former consisted in getting rid of the infection and dilating the stricture. In aggravated cases the stricture might be excised and the ureter planted in the bladder, but



tubercular disease of the upper urinary tract must be taken away entirely.

Incidentally Kelly mentioned that injury of the ureter in hysterectomy might to a great extent be avoided by the bisection of the uterus; he laid much stress upon a careful inspection of the parts after the abdomen had been opened and before proceeding with the operation. Wounds of the ureters were, however, less common in the hands of the more experienced operators. Mostly they were in the pelvic section of the canal; if in the upper part it was best to do an anastomosis, or, if the condition of the patient forbade this, one might simply tie the upper end; often this expedient was not followed by any symptoms.

#### UTERINE MYOMATA AND THEIR OPERATIVE TREATMENT.

V. HERZFELD (*Wiener med. Wchns.*, 1902, Nos. 27, 28) is not inclined to operations by the vagina for adnexal disease, because, contrary to the intended plan of operation, it is often necessary to sacrifice the uterus, and also because, when the disease is on the right side, the vermiform appendix is often involved. In operating upon myomata he holds it as a principle to do so by the vagina whenever the tumours are accessible by that route, in spite of the extreme technical difficulties that are often met with in doing so. As a rule the procedure is total extirpation with enucleation or piecemeal removal of the tumour. In 116 operations, the plan of operation had to be changed and laparotomy performed only twice, and only one patient died, whereas in fifty-four laparotomies five were fatal. The prolonged narcosis where the heart is frequently unsound, the incomparably greater extent to which the peritoneum suffers, and the unfavourable conditions for the free discharge of the wound secretions, are all against the abdominal operation. In serious cases, as the chances of success are diminished by heart affections and anæmia, interference should not be too long delayed.

#### THE ABDOMINAL ENUCLEATION OF UTERINE FIBROMATA.

LOUBET, Paris (*Revue de Gynécologie*, 1902, t. vi., No. 2), gives an account of the results obtained by the conservative surgical treatment of uterine fibromata in France, where Tuffier is a pronounced advocate of abdominal enucleation. Of thirty-four patients so treated, thirty are reported cured, but none had been more than two years under observation since the operation. Four patients died (11·76 per cent.), but

three of the deaths are attributed to serious and avoidable mistakes by the operator in regard to personal asepsis. Subtracting these three deaths, the mortality appears as only 2.94 per cent. compared with 4.5 per cent. for supravaginal amputation, and 9.68 per cent. for abdominal hysterectomy. As important technical points Loubet mentions that: On the day before the operation, after dilatation by laminaria tents, vaginal drainage is secured by an incision in the median line, where the vessels are fewest. The myoma is secured by strong pronged hooks and then shelled out of its bed with a spatula. The uterus is sutured in two layers. Abdominal drainage is only employed in exceptional cases for forty-eight hours, vaginal is kept up for five days. As far as possible all the myomata (seventeen were taken from one uterus) should be enucleated through the anterior median incision in the uterus. Owing to the great capability of the uterine muscle to contract, resection of the uterine wall is seldom necessary in order to avoid hollow cavities. If the cavity of the uterus be opened, as happened in twelve cases, downward drainage should be secured by an india-rubber tube. The enucleation of fibromyomata may be contraindicated by the excessive size or number of the tumours, bilateral adnexal disease, the absence of a proper capsule, or by secondary changes in the tumour; it is to be preferred to the extirpation of the internal genital organs, more especially in serious chronic adnexal diseases with adhesions. The early removal of myomata is advocated on account of the disasters they may cause in pregnancy, labour, or childbed.

#### SUPRAVAGINAL HYSTERECTOMY FOR FIBROMATA.

LAFOURCADE, Bayonne (*Semaine Médicale*, 1902, No. 44), at the recent French Congress of Surgery, said that he had now abandoned total hysterectomy for fibromata in favour of the supravaginal operation, and in uncomplicated employed Kelly's method. When the tumours were enclosed in the broad ligament he performed a preliminary enucleation, and when they involved the entire uterus or the supravaginal portion of the neck, he adopted some modification suitable for the case. He had done altogether 72 abdominal hysterectomies and had had 4 deaths among his earlier cases, but of these 2 could not be attributed directly to the operation: the other 68 all recovered, and not one of the last 42 had been fatal.

FIBROMYOMATA COMPLICATING PREGNANCY.

BAECKER, Ofen-Pest (*Centralb. f. Gyn.*, 1902, No. 38), reports six cases of fibromata complicating pregnancy. He points out that Gusserow's idea that fibroids induced sterility is negatived by the large number of the subjects of these tumours who are brought to bed; at the same time he by no means shares the opinion that myomata are innocent complications of gestation; the least harmful are subserous myomata of the corpus; tumours situated in the collum cause most serious trouble. The most perilous, but happily also the most uncommon accident, is necrosis of the tumour; one more usual and less acutely dangerous, is rapid growth of the myoma during gestation. Other possible sources of danger lie in an operation having to be performed during labour, and in necrosis of the tumour in childbed. As a gravid woman with a fibroma is always in more or less danger, Baecker, with the woman's consent, induces abortion, if the pregnancy has not gone beyond six weeks; from the third month he adopts an expectant attitude, but if intervention is indicated recommends radical treatment, either total extirpation or supravaginal amputation.

ABDOMINAL SECTION DURING PREGNANCY.

CARSTENS, Detroit (*Amer. Med.*, September 21, 1902), had had the following cases complicating pregnancy: Appendicitis, 5; fibroids, 4; hernia, 1; abdominal hysterectomy, 1; ovariectomy, 3; vaginal hysterectomy, 3; and miscellaneous, 3; or altogether 20 cases and 5 deaths, so that the mortality was 25 per cent. This included all his cases for very many years. To-day the mortality would probably be far less. All acute diseases requiring prompt operation could be operated upon just as well as if pregnancy did not exist. Tumours that would interfere with labour should in all cases be operated upon, as there was far less danger attached to their removal during pregnancy than there was by non-intervention and letting the woman go to full term. He had seen most lamentable cases of the latter kind. Tumours above or which could be pushed above, the brim of the pelvis, need not be interfered with; still, as a rule, all tumours took on a very rapid growth during pregnancy and the increase in size might interfere with the various functions of life and then surgical intervention was required.

## THE TREATMENT OF INOPERABLE UTERINE AND VAGINAL CANCER.

MEINERT (*Muench. med. Wchns.*, 1902, No. 39), referring to Czerny's report to the Surgical Congress of 1900, on the action of chloride of zinc in ninety-five cases, of which forty-eight were uterine carcinoma, and to the accepted fact that putridity, bleeding, and pain, are often relieved for a considerable time by the scraping and cauterisation of cancerous surfaces by heat or chemical agency, mentions that he has in the practice of another physician, met with one instance in which a permanent cure resulted from cauterisation with chloride of zinc paste. He had often himself employed this form of cautery, using the Canquoin mixture of equal parts of zinc chloride and starch, and had obtained, it is true, no permanent cure, but results of a kind which as far as he knew had not been elsewhere sought for by this method, but rather by colpocleisis after the formation of an artificial recto-vaginal fistula. In six instances the temporarily arrested disease had been completely shut off from the outer air by a firm and extensive vaginal cicatrix. If freshly prepared paste in a gauze bag, supported by a wet alkaline plug, was left in position for from seven to twelve days, a firm stocking-shaped cauterisation scab usually came away, and, under daily irrigation, the raw vagina became occluded from within outwards.

In this treatment, which could only be applied to those who have ceased menstruating, morphia was required to subdue the rather severe pain, and one should be prepared for several days' fever, and even for a fatal termination, as had actually happened in one instance. The benefit derived from this treatment by those who survived was, however, too enticing to deter him from trying it again.

At the Dresden Scientific and Medical Society, Meinert exhibited two cicatricial casts from patients since dead. In one an ovarian cystoma formed, and on extirpation proved to be carcinomatous; the patient sank two years after the cauterisation from suffering attendant on cancer of the peritoneum and glands of the mesentery. In the other, the recurrent carcinoma broke through from the closed vagina into the rectum; this patient had thought herself cured, and for a whole year was able to come an hour's journey to the consulting room. She died about a year and a half after the cauterisation, with marasmus, but without pain.

In the discussion on Meinert's paper, KLOTZ said that

the depth of the action of the chloride of zinc was an objection to its general use; for the same class of cases he employed scraping and cauterisation with the Paquelin, and had so treated twenty-one, of which three had remained free from recurrence for seven years.

PLETTNER had seen one of Klotz' successful cases, and instanced the good effect of the similar treatment of rectal carcinoma, the scraping being limited to the lower part of the gut, so that there was no risk of perforating the peritoneum..

#### PALLIATIVE TREATMENT OF UTERINE CANCER: BILATERAL LIGATURE OF THE HYPOGASTRIC AND OVARIAN ARTERIES.

KROENIG (*Centralb. f. Gyn.*, 1902, No. 41) writes: In cancer of the uterus too far advanced for operation it is usual to resort to the actual cautery or curette in order to obtain relief from the hæmorrhages and from the evil odour of the putrefying masses. Unfortunately these measures sometimes fail, indeed the use of the curette may be precluded by the danger of perforating the bladder or rectum, or of opening the peritoneal cavity. In such cases Kroenig recommends a proceeding which he has adopted in three instances with satisfactory results, namely, bilateral ligature of the hypogastric and ovarian arteries. This he says is best done by a transperitoneal operation, and is not a very serious matter as the peritoneal cavity is only open for a few minutes and there is no loss of blood; convalescence is very rapid, and the patient, if not weakened by the disease, can generally leave her bed in a week. It is best to use silk and to tie the hypogastric at the point where it leaves the common iliac artery, and the ovarian where it enters the broad ligament. Latterly he has also tied the artery of the round ligament to avoid the establishment of a collateral circulation from the external iliac through the internal spermatic artery. The abdominal wound can be kept very small and the fascia may be divided, in Pfannenstiel's way, transversely, not close to the symphysis but between that and the navel. The fascia is afterwards sutured separately with silk. The hæmorrhage in all three cases ceased directly after the operation, which was especially notable in the third case, as the patient had been brought to the last degree of anæmia by daily loss of much blood. In the first case, probably owing to a collateral circulation having

been set up, the hæmorrhage returned three months after the operation. The putrid discharge was not stopped for long but returned comparatively soon.

He suggests that the ligature of the arteries may perhaps be combined with the excochleation of the carcinomatous masses, but has not yet tried this plan as he wished to ascertain the clinical effect absolutely due to the former.

Kroenig thinks that, as the large majority of German gynaecologists have recently accepted and now practise the abdominal removal of uterine carcinoma, this short operation, taking scarce five minutes, should always be undertaken when, after opening the abdomen, it is found that the disease is not amenable to radical treatment.

MORRIS (*Brit. Med. Journ.*, 1902, October 25) said at the Manchester meeting respecting the treatment of cancer of the uterine cervix: "So greatly improved are the methods of vaginal hysterectomy, so diminished the death-rate of the operation, and so free is the patient from dysmenorrhœa, hæmatometra, hæmatosalpinx, and the other sequelæ of supravaginal amputation of the cervix, that this latter operation should be abandoned in favour of vaginal hysterectomy. No radical operation, however, is worth performing when the disease extends beyond the limits of the uterus into the connective tissue about the cervix, or into the utero-sacral or broad ligaments, or when the vagina is extensively involved. In such cases prolonged immunity, to say nothing of permanent benefit, is out of the question. More might be done than I think is frequent at the present time in palliating the symptoms of certain cases of fungating carcinoma of the rectum and of the cervix of the uterus. Many of the ills in such cases are due to invasion of the growth by septic organisms, and the production of a state of chronic sapræmia. Nausea and vomiting and various other digestive symptoms, diarrhœa, high temperature, delirium, and profuse foul discharges are explained in this way, whilst severe hæmorrhages, and, in the case of the rectum, complete or partial obstruction are likewise caused by the growths. These symptoms may all be removed, and the patients greatly improved in general health afterwards, by the free use of the curette or sharp spoon, followed by the application of a strong solution of chloride of zinc, or the solid chloride of zinc, to the raw surfaces and margins."

FERGUSON (*Ibid.*) spoke highly of the benefit derived in advanced cases, in the relief of pain and putridity, from

weekly packings of the cavity with a drachm of iodoform which he allowed to remain for two days.

#### THE SURGICAL TREATMENT OF CANCER OF THE UTERUS.

CULLEN (Baltimore), the first reporter on this subject at the Fourth International Congress at Rome, said: Total hysterectomy was performed for the first time by A. W. Freund in 1878. Pawlik in Europe and Kelly in America, introduced catheterisation of the ureters to prevent their being injured during the operation. Riess, Clark and Rumpf advised the exeresis of the glands, but it was Werder who devised the best method of removing them and the cellular tissue, to the greatest extent. Wertheim put forward the same theory of operating, contriving that every step in the proceeding should be carried out within the view of the surgeon. Cullen concurred with Wertheim that preliminary curetting of the uterus materially exhausted the strength of the patient, and on the ground of the studies of Feitel and Kroenig upon the ureteral circulation, thought it better not to isolate those ducts from the peritoneum; he spoke highly of Sampson's way of dividing the ureter above the point where it was compressed by the neoplasm, and then implanting it in the bladder. In alluding to the hæmorrhage that occurs on the separation of the paravaginal tissue, he mentioned Brown Miller's method of applying ligatures to the walls on the vesical and rectal sides of the vagina, and praised Kroenig's method of placing a strip of gauze along the course of the ureter, for drainage. He was not favourable to vaginal hysterectomy, but thought that by Wertheim's way of operating 50 per cent. of the patients might be saved. Better results would be obtained, especially in cancer of the body of the uterus, as the diagnosis came to be established in the earlier stages, by microscopic examination.

A. W. FREUND (Berlin) drew the following conclusions: (1) Diagnosis of cancer of the uterus gives direct indication for the immediate total extirpation of that organ. (2) The operation performed at the beginning of the disease, and as completely as possible, promises good results in regard to permanent cure. (3) The abdominal operation, performed according to the principles of modern surgery, fulfils the indication better than a vaginal one. (4) The vaginal operation should be reserved as a useful palliative proceeding in cases too far advanced for radical intervention.



JONNESCO (Bucharest), after describing his own modification of Wertheim's operation, summarised the question as follows: (1) The surgical treatment of cancer of the uterus offers sufficiently satisfactory results, prolonging the life of the patient, and in some instances even giving complete cure. (2) The operation of election is the one that will permit the total ablation of the uterus, of its adnexa, of the cellular tissue and of the lymphatic glands, pelvic, iliac, and lower lumbar. (3) The vaginal way does not permit this and should be abandoned or reserved as merely a partial or palliative operation. (4) The abdominal way alone permits ample exeresis, and should be adopted whenever the complete operation can be attempted. (5) Operations done even by that way are insufficient and merely palliative unless the evacuation is complete. (6) Total abdominal castration followed by complete dissection of the pelvis, the iliac fossæ, and the lumbar region, is an operation at once logical, possible, benignant, easy, and efficacious. It is the one that should be preferred. (7) It should not be carried out unless the disease is limited, and, clinically and during the course of the operation, it appears to be possible to cut out all the diseased parts and not to leave any infiltrated tissue or lymphatic glands. (8) Diffuse uterine cancer does not admit of more than palliative treatment. (9) The possibility of operating in the earliest stage of the development of cancer is an indispensable condition for the success of surgical treatment.

POZZI (Paris) reported as follows: (1) On the basis of his own numerous operations he concluded that surgical treatment hardly ever gives a permanent cure, and rarely prolongs life more than two years. In exceptional cases and circumstances the patient may survive for four or six years, or even longer. (2) Hysterectomy is not justifiable in cases in which the disease has extended so far beyond the limits of the organ as to lessen its mobility and cause induration of the neighbouring tissues. A palliative treatment by curettage and the actual cautery may be most remarkably beneficial and is absolutely innocuous. (3) The influence of the ganglia in the final phenomena and in the post-operative metastases has been exaggerated. Compression of the ureters (the principal cause of grave accidents) is rarely due to the adenopathia, but rather to the progressive extension of the disease to the surrounding cellular tissue. Recurrence takes place not so much by the development of neoplastic adenitis at a



distance, as by the infiltration of the cicatrix which, in its own place, becomes indurated and then ulcerates. The extirpation of the ganglia can never be complete, and seems to have but little influence upon the development of the accidents which prove fatal. Nor should the abdominal way be absolutely indicated by the necessity of extirpating the glands.

(4) Abdominal hysterectomy is a more serious operation than vaginal, increasing the dangers of infection. The numerous cases in which laparotomy appears to be very easy, and in which the abdominal operation is to be preferred, are those in which the vaginal way is rendered difficult for one of the following reasons: narrowness or atrophy of the canal, extreme friability or enlargement of the neck, extreme falling away of the anterior wall of the uterus with extension into the vaginal vault. Laparotomy is also preferable when the corpus uteri is so much augmented in volume, that by the vagina it would have to be extracted piecemeal (voluminous cancer of the corpus, carcinoma complicated by fibroma pyometra or pyosalpinx). Finally, abdominal hysterectomy is indicated whenever the mobility of the uterus is diminished, and there is induration of the neighbouring tissues. But it must be possible to define accurately the limits of the uterus, and to free the ureters from any tissue which has lost its elasticity (and this in Pozzi's opinion is the most important point). More serious than vaginal hysterectomy, its prognosis is not always altogether grave; indeed, as in all operations, the prognosis varies, and with the perfecting of the technique improves, as the most recent statistics show.

(5) The enormous ruin produced by the extirpation of cellular tissue, by the curettage of the pelvis, and by the extirpation of the glands, give to the operation a gravity out of comparison with the possible advantages to be obtained. In commencing carcinoma excellent results can be got by a more simple operation (extirpation of the uterus), and in advanced cases of a disease which must necessarily be fatal in a short time, palliative treatment is to be preferred to measures which cannot cure and must be hurtful. The better operation is that which with least immediate mortality procures marked alleviation for the patient.

(6) Vaginal hysterectomy, which involves less danger of infection, remains the treatment for those cases, unfortunately very rare, in which the carcinomatous uterus has not lost its mobility and the neighbouring parts have not become infiltrated; always excepting the class above mentioned in which the abdominal way is indicated.

WERTHEIM (Vienna), on the ground of his recognised special experience, maintained that mere extirpation of the uterus does not, save in a very few cases, suffice for the radical cure of cancer of that organ. On the contrary, more efficacious measures are indispensable and may be found, in the first place, in removing the connective tissue surrounding the diseased uterus as extensively as possible, and secondly, in the exeresis of the local lymphatic glands. The best method of securing these two aims is laparotomy, of which owing to improvements in technique, the mortality has been so diminished that it can be no argument against the operation. The percentage of operable cases has risen remarkably since the adoption of the perfected abdominal proceeding. Moreover the ultimate results, as far as one can judge from what has been obtained up till now, will become better, and thus the absolute advantages of the operation will be still further improved. Operation for cancer should, however, be done without any delay.

NIGRISOLI (Ravenna) also advocated the abdominal rather than the vaginal way of operating; though the immediate mortality was greater (two deaths in 14 cases compared with four in 55 vaginal interventions), the abdominal operation was easier, offered less danger of inoculation, and gave a hope of more permanent cure.

AMANN (Munich), DELBET (Paris), JACOBS (Brussels), ZWEIFEL (Leipsic), MORISANI and SPINELLI (Naples) also took part in the discussion. The opinions as to methods of operation were very various, but were not hopeful as to the results more than those expressed by Pozzi.

#### UTERINE CANCER AND ITS OPERATIVE TREATMENT.

JAPP SINCLAIR, in an admirable address at the Manchester Meeting of the British Medical Association, deprecated any excessive trust in pathological and bacteriological methods of investigation, especially when, as so often is the case, clinical observation is subordinated to them. For cervical cancer, which he held to be especially a disease of poor and over-worked women, he recommended total vaginal extirpation only; he entirely rejected the various radical abdominal operations with evacuation of the pelvis, in which the immediate mortality is very high, and the danger of injuring the ureters or bladder very great, while the ultimate results are anything but satisfactory.

### RADICAL OPERATION.

MACKENRODT, Berlin (*Berliner kl. Wchns.*, 1902, No. 38), with increasing experience and developing technique, has become more and more radical in his procedure, and now removes all the glands below the fork of the iliac arteries, and takes away even part of the bladder and the entire ampulla recti with the uterus. In operating on rectal carcinoma he now invariably removes the vagina and paravaginal tissue, the uterus and posterior parametrium; the rectum and colon being resected to any desirable extent. The course of healing is satisfactory, and he finds that, in the male, operations just as radical may be carried out even more easily.

### TRANSVERSE DIVISION OF THE PERITONEUM, MORE PARTICULARLY IN ABDOMINAL OPERATIONS FOR UTERINE CANCER.

POTEN, Hanover (*Centralb. f. Gyn.*, 1902, No. 28), divides the abdominal wall from the umbilicus to the symphysis, but only as far as the peritoneum. The still intact serous sac is then separated freely from the muscles to right and left, and owing to its loose attachment there is no difficulty in thus bringing the whole of the front part of the peritoneum into view. The peritoneum is then opened transversely close above where it passes from the abdominal wall on to the bladder, so that it forms a flap like an apron, which can be pushed back and stretched to the posterior wall of the pelvis and to the rectum below the promontory, so as to exclude the intestines from the field of operation, and thereby lessen the dangers of extensive coeliotomies, such as peritonitis, ileus and shock.

### THE TREATMENT OF PREGNANT WOMEN WITH CANCER.

POZZI (*Der Frauenarzt*, 1902, October 24), speaking at the Paris Society for Gynæcology, &c., distinguished cases in which the pregnancy has existed less than four months from those in which it has gone on longer. In the former class the diagnosis of the pregnancy is a matter of much difficulty, as the extent to which the cancer affects the uterus, the co-existence of a fibroma, or the accumulation of fluids within its cavity may cause, as pregnancy would, a very considerable enlargement of the womb. In this class Pozzi recommends immediate surgical intervention on the grounds that: (1) The life of the foetus is under the circumstances

not a factor of much importance ; (2) Abortion very frequently occurs spontaneously ; (3) and when spontaneous abortion happens not under medical supervision, hæmorrhagic and septic complications are often induced by the malignant disease ; (4) The development of the cancer is vastly accelerated by the existence of pregnancy.

In the second class, in which pregnancy has proceeded beyond four months : Pozzi admits that the mode of treatment should always be ordered according to the way the patient supports her pregnancy ; if badly he intervenes promptly, if otherwise he waits until the eighth month for the sake of a living child, but in his opinion it is absolutely dangerous to wait till labour has commenced at term.

In the first class he practises abdominal hysterectomy, admitting, however, that this is merely from personal predilection, for of course one can remove the uterus by the vagina as many operators prefer to do. In the second class abdominal pan-hysterectomy, it is self evident, is the only possible procedure.

#### ADENOMA MALIGNUM.

SELBERG (*Virchow's Archiv*, Bd. clx., S. 551) concludes, from the investigation of tumours of the uterus, rectum, intestines, stomach, and gall-bladder, that adenoma malignum is distinguished, by its destroying other tissues, undergoing ulceration, and giving rise to metastases of similar glandular structure, and also, from carcinoma, by its essentially glandular structure, containing no superimposed layers of epithelium, no polymorphous cellular forms, and no solid plugs of cells.

HERMANN, Prague (*Monats. f. Geb. u. Gyn.*, Bd. xv., S. 772), after alluding to Selberg's work and the opposite view taken by Hausemann and others, reports the following case, in which the new growth though clinically malignant, was histologically benign, and in which there had been no attempt whatever at repair as one which may be properly described as adenoma malignum. Its course, as far as it has gone, seems to justify the recognition of similar cases as a special species of tumour. A woman, aged 42, who for four years had had profuse mucous discharge, four weeks before admission to hospital had sudden and profuse hæmorrhage lasting for a day, and repeated eight days later with increased severity. The portio was represented by a hard uneven ulcerated tumour the size and form of an apple, which bled

easily and had begun to involve the vagina. The adnexa could not be felt, the parametrium was much infiltrated. In the course of two years and a half this growth was repeatedly scraped and cauterised so that the infiltrated vagina merged into a deep and easily bleeding crater. Her general condition remained good, but she had a profuse viscous discharge resembling ordinary cervical mucus. Repeated microscopical examination of excised portions of the tumour showed it to consist of long winding glands in a matrix of almost pure connective tissue; the glands were proliferating inwards and outwards, and all separated by more or less definite septa of connective tissue, and lined throughout with a single layer of well-defined cylindrical epithelium.

#### THE HYDATID MOLE AND THE SO-CALLED DECIDUOMA MALIGNUM.

POLANO (*Sammlung kl. Vortraege*, N.F. No. 329) describes the hydatid mole as an enormous proliferation of the foetal ectoderm, attended with degeneration and the formation of vacuoles, which forces its way into the maternal tissues. With this is associated necrosis and oedema of the stroma of the chorion. The only treatment is to empty the uterus under every antiseptic precaution; it may be well as a matter of precaution, three or four weeks later, to supplement this proceeding by curetting the uterus, not only in order that if any products of conception have remained behind they may be removed, but also for diagnostic purposes.

The so-called deciduoma malignum is referred to the carcinomata though differing from them in three points: (1) In it we find a proliferation of the cellular elements of one individual, the foetus, invading the tissues of another individual, the mother; (2) the foetal connective tissue connected with the cells takes no part in the process; (3) the dissemination of the disease through the blood vessels differs from the mode usual in other new growths. That creeping along the maternal endothelium, which may perhaps be attributed to some kind of chemotactic influence at present quite unexplained, and the gradual breaking into the lumen of the maternal vessels is not met with in any other form of malignant disease. It seems therefore better to class the so-called deciduoma malignum as we do sarcoma and carcinoma, as a malignant new growth *sui generis*, for which Polano agrees that Marchand's name "chorio-epithelioma" is the best.

## CHORIO-FIBRO-ANGIOMA.

CALDERINI, Bologna (*Lucina*, October, 1902), reporting to the recent Congress at Rome on a case of his own, concluded: Tumours of the placenta are not common. Apart from deciduoma, cystomata and vesicular degeneration, Veit only refers to forty-three recorded cases; they are, however, interesting as well from the practical as from the scientific point of view; indeed, Calderini's own case not only modified the form of the uterus and caused hydramnios, but led to uterine hæmorrhage, premature labour, irregularity of the uterine contractions, untimely rupture of the membranes, death of the foetus, with evidence of congestion of the liver and spleen and dropsy, artificial removal of the placenta, and grave anæmia from loss of blood during the third stage. The tumour was as large as a man's fist, in the form of a truncated cone, with the base turned towards the foetus, and its consistence was that of a soft myoma; the vertical section exhibited a central mass divided from a cortical layer by a sinuous margin resembling that of the arborescence of the villi of the chorion. Histologically the central part was composed of a network of capillaries with delicate walls, surrounded by fusiform elements (chorio-blasts); the cortical layer of connective tissue elements arranged in bundles, compressing the vessels and reducing them to mere fissures. This new growth, "chorio-fibro-angioma," forms the counterpart of "chorio-epithelioma," since it takes its origin from the parenchymal elements, the vessels and connective tissue of the villi, instead of from Langhans' cellular layer and the syncytium; the former are indubitably derived from the foetal elements of the ovum (chorion, allantois), the latter, at all events in part, from the maternal (decidua). Chorio-fibro-angioma, although related to sarcoma, is not, perhaps on account of its not being retained in the uterus, malignant: chorio-epithelioma is so on account of its structure, its more intimate contact with the uterine wall, and because of its remaining in the uterus after the expulsion of the ovum. Calderini considers his case especially interesting from this new point of view, and as forming a basis for dividing the affections of the placenta according to their origin from the maternal or foetal elements of the ovum.

## GENITAL TUBERCULOSIS.

SELLHEIM, Freiburg (*Muench. med. Wchns.*, 1902, No. 40), speaking at the Carlsbad Congress upon the diagnosis and

treatment of Genital Tuberculosis, said: disease in near relatives with whom the person in question lives, and evidence of tuberculosis in other organs of the body, are indications which often render it extremely probable that inflammatory affections of the female genitals may be of a tuberculous nature. Individuals with congenital defects in development are often tuberculous, and inversely, the presence in the system of various anatomical or physiological defects in development may make it very probable that an inflammatory process in the genital tract, otherwise of obscure etiology, is due to tuberculosis, and this probability has been proved by the results of operations. Certainty in the diagnosis depends upon local examination. Independent of the characteristic peculiarities to be met with in the exploration of the abdomen, much information may be gained by the recognition of tuberculosis of the pelvic peritoneum, which almost invariably accompanies similar disease of the genitals, and which, as pointed out by Hegar, may be detected on internal examination, by nodules that are almost pathognomonic. These nodules are found chiefly upon the posterior surfaces of the ligamenta lata and of the uterus and on the ligamenta sacro-uterina, and frequently the tube has assumed the form of a rosary in which the nodules are of an extremely hard consistence. The presence of a nodule in the pars uterina is a reliable sign of tubercular disease. Microscopical examination of the mucosa of the uterus is always necessary in case of tuberculosis affecting the tubes or the pelvic peritoneum, as, apart from its diagnostic importance, disease of the uterine mucosa may modify the prognosis and treatment. Using all these methods, Sellheim, dissenting from the opinions expressed elsewhere, considers that tuberculous disease of the female genital organs may, in most cases, be diagnosed. After discussing the indications for palliative or operative treatment, he reviewed the therapeutic results on the basis of sixty-five tuberculous women treated at the Freiburg clinic during the past eight years. Palliative measures were adopted in twenty-eight cases, with results satisfactory, not only as regards the disappearance of trouble and the restoration of working health, but also in the occurrence of a comparative cure of the diseased organs. In thirty-seven cases treated by operation the results on re-examination also proved good, and best where the operation had been radical. It seems, therefore, that when one is compelled to operate, the removal



of the diseased adnexa with the uterus by means of abdominal coeliotomy is desirable. These favourable results agree with what is seen after the removal of tuberculous foci in other parts of the body by operation, as if they were malignant growths.

AMANN, Munich, the first reporter at the Fourth International Congress of Obstetrics and Gynæcology at Rome (*Lucina*, October, 1902), concluded: (1) The possibility of congenital tubercular infection in man must be admitted; it affects the blood and thence may become localised in various organs, or in the genital tract. Some of the genital tuberculosis of infants has this origin, but in them, as a rule, the germs in the first instance affect the glands and afterwards pass into the circulation. Infants with genital tuberculosis are likely to die early, but the possibility of a prolonged period of latency cannot be excluded. In rare cases local infection may lead to signs of primary tuberculosis on the external genitals of children. (2) In children more advanced in age and in adults, tubercular infection occurs almost exclusively through the air passages of the respiratory tract; more rarely primary infection may happen from the digestive canal and mesenteric glands. During the process of caseation the bacilli are considerably increased in number and, from the lymphatic glands, they find their way by erosion of the blood vessels into the circulation, for transportation into various organs and the formation of secondary foci. (3) The primitive focus in the gland may undergo more or less marked regression, even calcification, while the secondary foci in specially disposed organs (*e.g.*, in the bones, kidneys or genitals) may continue to extend, and may in their turn give rise to invasion of the circulation and miliary tuberculosis. (4) Of the ways that tuberculosis of the female genital organs may arise, that from the bronchial glands, through the circulation, has been clearly proved (Amann's own case, in which neither peritoneum nor intestine was affected; a case reported by Costansoux, &c.). (5) In genital tuberculosis in the female, tuberculosis of the lungs or bronchial glands is almost constantly present. The changes in the tube, &c. found in ascertained instances of infection through the circulation, are identical with the lesions typical of genital tuberculosis in general. (6) The disposition of the genital organs to tuberculosis is more marked in the female than in the male; in female subjects of tuberculosis 20 per cent. have diseased genitals, in male subjects only 3 per cent. Hypo-



plasia of the genital organs increases the predisposition to tuberculosis in both male and female (Merletti reports twenty cases of genital tuberculosis in eighty females with hypoplasia). Moreover the disposition is apparently increased by chronic inflammatory changes, and by the puerperal state. Female genital tuberculosis, due to extension of the disease from the peritoneum or intestine, seems to be rather uncommon; so also transmission of the disease by the lymphatic channels. (7) The tube is nearly always the organ attacked first and with the greatest intensity; the descending secretions then lead to the subsequent infection of the uterus, cervix and vagina; but these organs may all be affected simultaneously and independently through the blood. (8) The existence of genital tuberculosis in the female due to direct external infection is by no means proved. (9) Nearly all the recorded cases of primary genital tuberculosis are open to objection. On this point value should be attached not to clinical or operative evidence, but to that of autopsies, and only to that of such as were undertaken with the deliberate intention of searching for hidden foci (Naegele). (10) The extension of tubercular lesions to the genital tract is no indication as to whether the disease is primary or secondary. (11) The progression in the tube of the tubercular bacilli, which are not endowed with any proper power of locomotion, may be explained by their association with spermatozoa. Bacilli may be found in the semen of tubercular individuals without any genital manifestations. The *B. tuberculosis* always follows the course of the secretions, and in the uterus will therefore be carried downwards. On the other hand, the spermatozoa are induced by the current to move in the opposite direction. One must suppose that the bacilli, in any case very few, are adherent to the spermatozoa. Considering the abundance of the uterine secretion we need not attribute any influence to the vibratile cilia of the epithelium. The researches of Pinner have shown that corpuscular elements are rapidly transported by the flow of the fluid through the tube into the uterus, and on into the vagina. (12) In regard to the so-called infection of cohabitation, living with a tubercular man offers much greater dangers of infection in other ways than sexual intercourse, especially through the air passages. (13) Primary tubercular manifestations of the external genital organs or vagina, with swelling of the associated glands, are hardly ever seen; the same may be said about the nests in the paravaginal tissue, accepted by

certain authors. (14) It seems particularly noteworthy that none of the pathological anatomists, Bollinger, von Recklinghausen, Ribbert, Albrecht (Vienna), Aschoff, Schmaus, Schmorl, or Albrecht (Munich), have met with a single case of primary genital tuberculosis in an adult. (15) Genital tuberculosis should not be described as ascending or descending, because even in the so-called primary and therefore most probably ascending form, the first organ involved is the tube. (16) External infection may be absolutely excluded in cases with congenital atresia of the vagina. (17) The prophylaxis of genital tuberculosis, as of similar pulmonary disease, consists in strengthening the resisting powers of the system, in diminishing the danger of infection, and in dealing with predisposing factors (blennorrhagia, child-bearing, &c.).

FAURE (Paris) said: Genital tuberculosis, a not rare affection, is interesting to the gynæcological surgeon only in the gross lesions revealed by clinical methods. The anatomical changes in it are the same as those caused by Koch's bacillus in other parts of the body. The bacillus may affect the corpus, or neck of the uterus, or the peritoneum, but in more various ways, the different tissues of the tube, especially the mucosa; cold abscesses also may be formed in the lumen; more rarely the ovary may be involved. The pelvic peritoneum generally shares in the morbid process and, consequently, there is effusion with more or less intimate adhesions. The symptoms are usually like those of adnexal inflammation. Diagnosis is always difficult. The evolution is sometimes acute, sometimes chronic, and sometimes though chronic, interrupted by exacerbations. Occasionally, the diagnosis is assisted by microscopical examination of the discharge, more often depends upon the syndromata, but generally is only made at operation. The course of the disease resembles that of a malignant tumour, with symptoms of peritonitis with effusion. Whether the peritonitis be primary or secondary to the infection, its symptoms are generally those of a chronic inflammation of the adnexa.

As regards treatment, it is now generally agreed that surgical intervention is necessary with the view of completely removing all the diseased parts, and if operation is not contraindicated on general grounds, the local focus of disease should be taken away, as it differs from other forms of adnexal inflammation in being a constant source of danger by diffusion throughout the system. Too often, from the difficulty of diagnosis, tuberculosis of the adnexa can be no more than

suspected before its existence is demonstrated upon the operating table. Faure recommends the use of the thermocautery, or, in cervical tuberculosis, the high amputation of the collum.

In the rare cases in which, though the uterus is affected as well as the adnexa, these organs are not adherent, he advises vaginal hysterectomy with bisection of the anterior wall after Doyen's method, and with the removal of the adnexa. In the more common cases, recourse must be had to laparotomy and a much wider removal of the adnexa than need be undertaken in forms of disease in which conservative ideas may be entertained. An exception may be made when the disease is confined to one side, but when both are affected, the uterus should also be removed. In any case, when the adhesions are organised and firm, the removal of the uterus greatly facilitates that of the adnexa. If acute or subacute inflammation complicates the case, or if there are active and disquieting symptoms due to suppuration from secondary infection, the vaginal operation is to be preferred; but such complications are not common, as genital tuberculosis is generally slow in its course.

Should there be no adhesions, the technique of the vaginal operation is the same as in ordinary cases; on the other hand, if such are present they should be detached piece by piece. When the uterus must be removed, it is better to work from below upwards by a subtotal hysterectomy, followed by the removal of the adnexa, in doing which the greatest care should be taken not to injure the attached viscera. If the case is an easy one, the operation may be performed, as usual, from above downwards; and in the most simple cases Faure recommends the method he uses for myomata, that is, section of the isthmus of the neck from behind with scissors, traction on the cervix, and the division of the broad ligament on one side after the application of a forceps to the outer side. When the disease is unilateral, he recommends Kelly's method of dividing the broad ligament on the unaffected side, then with scissors cutting through the neck and dividing the ligament of the affected side from below upwards, securing the arteries either before or after the section.

In performing total hysterectomy, Doyen attacks the uterus from above downwards through Douglas' pouch; Richelot, through the plica vesico-uterina. Terrier first separates the adnexa from the uterus, which he then am-

putates at the cervix, and afterwards removes the adnexa. An easier way is by longitudinal division of the uterus, proceeding as in Kelly's operation on each side, and removing each half of the uterus with the adnexa belonging to it; this avoids the detachment of the adnexa from the uterus. Faure has in the last five years practised this bisection of the uterus in total hysterectomies with brilliant results.

MARTIN (Greifswald) reported as follows: (1) The female genital organs share, much oftener than has been hitherto supposed, in the infection by the tubercle bacillus. (2) Such an infection may begin and develop in any segment of the female genital apparatus. (3) The genital organs may be the seat of primary tuberculosis, but the disease, when so situated, is very much oftener secondary. (4) The bacilli sometimes find their way in through the vagina (ascending infection), but much oftener come from above (descending infection). It is very probable that the infection often comes from the intestine, either directly, or through the glands or peritoneum; but it may also occur through the blood, or by metastasis. (5) Whatever the mode of infection, the local manifestation in the genitals may develop by continuous extension or sporadically. Usually different segments are attacked at the same time, and sound parts are left between them. (6) The cure of the tuberculosis at the original focus often goes on at the same time as acute manifestations of the disease in the genital organs. (7) Chronic inflammatory processes, puerperal, gonorrhoeal, or syphilitic, create a sort of predisposition in the genitals; dystrophia and hypoplasia do so also. (8) Pathognomonic symptoms have not yet been recognised. (9) Any inflammatory lesion of the genitals should make one suspect tuberculosis when that disease is known to be present in other organs. (10) The diagnosis cannot be said to be established without an anatomical examination, but in the greater number of cases it may be accepted as safe, on the discovery of the bacilli. Even in default of the bacilli, many authors recognise as sufficient the microscopical demonstration of typical tubercle. (11) The prognosis, always grave, may in case of extensive destruction, be absolutely unfavourable. (12) When the disease is extensive, especially when other organs are affected, treatment should be limited to general measures and to dealing with the individual symptoms. If the disease be confined to the genitals, or the local manifestations there assume a threatening aspect, the extirpation of the focus of the disease, or if necessary, of the entire genital apparatus, may offer hopes of cure and therefore be justifiable.

VEIT (Leyden) presented the following conclusions: (1) Genital tuberculosis is more common than was believed. (2) It may, beyond doubt, be primary; the secondary form is commoner. (3) Its genesis is generally from above, very rarely from below, nevertheless it may occur from infection through the blood, and also, in consequence of accidental lesions, through the lymphatics. (4) Its diagnosis may rest upon the discovery of the tubercular bacillus, or may possibly be made on the presence of absolute tubercle. (5) It may undergo spontaneous cure. (6) In genital tuberculosis, when primary or isolated, radical operation, at least for the present, is the best method of cure. (7) In secondary and not isolated forms, general treatment is of the first importance, especially measures to reinforce the system; but it cannot be denied that radical operation may give, even in these cases, excellent permanent results, and may therefore be occasionally indicated. (8) *Tubercular peritonitis* is always secondary, it may be of the ascitic or adhesive kind. (9) The lesion of the genitals may be primary or secondary, or may be entirely confined to the serous investment of the genital organs. (10) Peritonitis with extensive nodular formations, when not dependent on ovarian tumours or cancer, may be accepted as of tubercular origin. (11) Peritoneal tuberculosis may, though rarely, undergo spontaneous cure. (12) Tubercular peritonitis is cured by laparotomy; the exceptions to this will generally be found due to advanced tuberculosis of other organs. (13) No explanation of such cure has as yet been generally accepted; it seems, however, probable that it is due to the influence of the serum which becomes normal or antitoxic. (14) From a therapeutic point of view recent cases should be operated upon, if the peritonitis produces trouble; but a very early operation may have to be repeated. (15) Chronic cases should be kept under observation, and, if the tendency to spontaneous cure is not soon apparent, they should be operated upon. (16) The operation consists in a simple laparotomy, in evacuating the fluid and in closing the abdominal cavity; only when a co-existing and completely isolated genital tuberculosis of the genital organs is discovered, the radical abdominal operation is also to be performed.

SPINELLI related a case of probable infection from co-habitation with a subject of tuberculosis of the testicle.

POZZI advocated the completer removal of uterus and adnexa by the abdominal way, partial operations being in his opinion unreliable and even dangerous when the lesions appeared to be limited.

## SARCOMA OF THE OVARY.

STAUDER (*Zeits. f. Geb. u. Gyn.*, Bd. xlvii., Hft. 3) reports upon twenty cases from the Wuerzburg Frauenklinik, of which five were round and two spindle-celled sarcoma, seven of mixed form and six endotheliomata. They were met with in 295 cases of ovariectomy, *i.e.*, in 6·78 per cent., and comparatively often in young persons, and even under the age of 20. Their diagnosis was not assisted by any pathognomonic characteristics; the results of operation, when the tumours were unilateral and removed early, were not unfavourable; there were seven deaths (31·58 per cent.) occurring from one day to six months after operation. He attributes the fact that the permanent results were so favourable compared with those of carcinoma, to the large proportion of the ovarian sarcomata being unilateral and little inclined to metastases, and also to the tumours being generally free from adhesions and provided with a good pedicle, so that it was possible to make a clean operation.

## OVARIAN FIBROMATA.

PETERSON (*Amer. Gynec.*, 1902, July), in an article based upon two recent and eighty-two previously published cases, concludes that fibroma of the ovary, though not so uncommon as has been supposed, is one of the rarest forms of ovarian new-growth; it is met with earlier, and, relatively, with greater frequency, in young women, and twice as often in such as are married. Menorrhagia and metrorrhagia are apt to occur when the disease affects both ovaries, but otherwise are not very constant. So far from amenorrhœa being induced by these tumours, the onset of the menopause is generally delayed. In some instances the tumours attain a large size, and betray themselves by noticeable symptoms, in a few months, but more often the growth is slow, and there may be no marked symptoms for many years. More or less pain is felt in nearly half the cases, and oftener when the tumour is of a moderate size; its absence implies that the tumour is not adherent to neighbouring organs. In about 15·6 per cent. of all the cases there had been dysuria; in a few, large tumours centrally situated had caused retrodisplacement of the uterus, but, as a rule, the position of that organ was not affected by the ovarian growth. There was ascites in two-fifths of the cases, the fluid being, as a rule, clear and almost colourless; its amount did not depend upon the size of the tumour, but sometimes, when large, caused

much distress. The pedicle of the tumour generally included the Fallopian tube.

#### FIBROIDS OF THE OVARY AND BROAD LIGAMENT.

DEMONS, Bordeaux (*Semaine Médicale*, 1902, No. 44), at the recent French Congress of Surgery, drew attention to the circumstance that fibroids of the broad ligament, or of the ovary, were not only apt to cause ascites, but that they were very often associated with pleural effusion, œdema of the lower extremities, wasting, &c.; in fact, with such a series of general symptoms as strongly suggested malignant disease. He had seen three cases of the kind in which other surgeons had absolutely refused to operate, indeed, the symptoms were in one of them so pronounced that it was only upon the urgent representations of the patient's son, that he had himself consented to intervene. Nevertheless all three of these women got well, and soon after the operations all the complications had disappeared, even the pleural effusions had been absorbed.

#### OVARIOTOMY.

MAYO ROBSON, in his address at the Yorkshire College, Leeds, on the advance of surgery during the past thirty years (*Brit. Med. Journ.*, 1902, October 4), remarked that perhaps in no class of cases had greater progress to be recorded than in abdominal diseases, which, formerly, were for the most part treated in the medical wards. For instance, in the Leeds Infirmary, in 1870 and 1871, under the heading "abdominal section," no case was reported; in other words, the peritoneal cavity was rarely opened, and then only for ovariectomy and strangulated hernia; whereas in 1901, 569 patients had had abdominal section performed for diseases of every organ contained within the abdominal cavity. The statistics of ovariectomy in this hospital twenty-three years ago were so unfavourable, that tapping was frequently resorted to in order to defer the operation, and even in 1875 twelve patients were thus treated, and only seven submitted to the radical operation. Out of these seven five died, yielding a mortality of 71·3 per cent. On the other hand, in the year 1901, ovariectomy was performed sixty-four times, with sixty recoveries, giving a mortality of 6·2 per cent., and seeing that this includes malignant, gangrenous, and suppurating cases, as well as patients extremely ill in other ways, the mortality is one of which no hospital need feel ashamed.



## TUBO-OVARIAN CYSTS AND THEIR MORPHO-GENESIS.

PREISER (*Archiv f. Gyn.*, Bd. lxxiv, S. 839) defines a tubo-ovarian cyst as a cystic tumour of the uterine adnexa in the formation of the walls of which both tube and ovary take part. The variety of conditions under which such structures are met with after death suggest, and it is now generally accepted, that these tumours may arise in various ways. On the basis of cases previously published and of several new ones, from Pfannenstiel's Klinik at Breslau, here recorded, Preiser criticises the various theories that have been put forward as to the origin of these tubo-ovarian cysts, but does not touch upon new growths, nor on tubo-ovarian abscesses, except so far as their origin is related to that of the cysts. Of the varieties in anatomical form of the tubo-ovarian cysts, that most frequently met with is retort-shaped, the section of which generally displays a greatly distended tube without any fimbriae, the wall of which is continued directly into that of the ovarian cyst. In other cases, however, between the tube and the ovarian cyst there is a definite intermediate cyst, and the ovary may often be found unaltered in itself but firmly attached to this intermediate cyst, and the fimbriae are often found well preserved and either floating free or adherent inside the tubo-ovarian cyst. In most cases there are marked signs of inflammation past or present, yet the outer surface of the tubo-ovarian cyst is occasionally so smooth that it has been supposed to be congenital and the condition described as an "*ovarial-tube*." Preiser, however, concludes that (1) No definite congenital *ovarial-tube* has ever been demonstrated in woman; (2) the majority of tubo-ovarian cysts owe their origin to the adhesion of a sacto-salpinx with an ovarian cyst, and the subsequent destruction of the separating walls owing to atrophy from pressure; the fimbriae generally perish with the separating wall; (3) the formation of a tubo-ovarian cyst by means of an hæmatocele does not seem impossible, but is not in accordance with the frequency of the bilateral condition, and the absence of any proof of hæmorrhage; (4) the existence of fimbriae inside some tubo-ovarian cysts, floating free or adherent to the walls, may, according to Pfannenstiel, be explained on the supposition that originally the exudate from the tube, by the formation of an encapsulating membrane round it, became a "*pyocele peritubaria*" enclosing the abdominal ostium on all sides and forming a connecting limb



between the tube and a cystic ovary. When the wall separating the cavity of the pyocele from that of the ovarian cyst disappeared, a tubo-ovarian cyst was formed. In the earlier stages this might contain pus, to be later on replaced by serous fluid.

#### PAROVARIAN CYST SIMULATING SALPINGITIS.

CELOS (*Ann. Gyn. Obst.*, August, 1902), in making an autopsy found a small fibroma in the uterus. Both ovaries and the left tube were normal, but the external third of the right tube presented a round tumour, the size of an orange, and full of transparent fluid; this tumour was not adherent to any of the neighbouring parts except to the Fallopian tube which, upon dissection, was found to pass round the tumour, to be pervious throughout and to have no communication with the interior of the cyst.

P. Z. H.

#### TUBAL PREGNANCY: FATAL HÆMORRHAGE WITHOUT RUPTURE.

As bearing upon the specimen shown by him at the British Gynæcological Society on October 9, Professor TAYLOR sends us the following from the *British Medical Journal*, 226 Epit., 1902, August 11: "ASPELL (*Amer. Journ. Obstet.*, May, 1902) exhibited at a recent meeting of an American society an unruptured sac with a ruptured vein in the wall of the tube. A shopgirl, aged 22, previously in perfect health, was seized with abdominal pain. She walked home, became worse, and was sent into hospital almost exsanguinated. No operation was permitted, and she died. In the discussion BAKER observed that once in a patient of his own with signs of hæmorrhage, who died before she came enough under the anæsthetic to allow of examination, two quarts of blood were found in the abdominal cavity. There was a tubal sac without a trace of rupture; the blood came from a ruptured vessel at the end of the Fallopian tube. Pregnancy had advanced to the second month."

#### DOUBLE TUBAL PREGNANCY: SIMULTANEOUS RUPTURE.

FREDERICK (*Amer. Jour. Obst.*, 1901, November), in a multipara of 38 who was attacked by symptoms of ruptured extrauterine foetation, found both sides of the pelvis full of blood clots. Both tubes were ruptured and the blood had come from both sides alike. He thinks the case unique.

## RETRO-UTERINE HÆMATOCELE FROM INCOMPLETE TUBAL ABORTION.

BOURSIER (*Jour. Méd. Bordeaux*, June, 1902) reports: In a woman who two years previously had had vaginitis, probably gonorrhœal, with subsequent endometritis and some salpingitis, the menstrual discharge appeared at the proper time on January 10 and as usual lasted eight days; there had not been any indication of pregnancy. On the 18th, when the discharge seemed to be over, she was seized, while stooping, with a violent pain in her abdomen which lasted for two hours and then passed off gradually; she afterwards had continued vaginal hæmorrhage and every four or five days paroxysms of pain, not quite so severe as the first attack, but sometimes accompanied with vomiting. Concurrently with these attacks a swelling developed above the pubes at each side of the median line, extending into the iliac fossæ, but more marked on the right side. On her admission to the hospital on February 27, this swelling could be felt as a smooth, round, immobile tumour, without fluctuation, while the uterus seemed to be pressed forwards against the symphysis by a mass occupying Douglas' pouch and extending into each side of the pelvis. After an attack of pain on March 3, the swelling in the abdomen was found to have increased appreciably in size, as also after another four days later, when her temperature ran up to 38° C. The above diagnosis was then made and was confirmed by laparotomy. The tube was not ruptured and still contained the ovum; the hæmorrhage had taken place through the abdominal end.

P. Z. H.

## REPEATED EXTRAUTERINE PREGNANCY.

PHILLIPOWICZ (*Wiener kl. Wchns.*, 1902, No. 13) reports a case in which, when the foetus and placenta were removed at the first operation on account of the weak state of the patient, extirpation was not attempted. At the second operation undertaken on account of pregnancy in the other tube, the condition of the internal genital organs was remarkable, as there was not any trace of any adhesions. The gestation sac was extirpated, the other tube, the seat of the former pregnancy, was merely thickened but perfectly free.

HEIKEL (*Finska läkaresällskapets Handl.*, 1902, May) reports four new cases from Engström's Klinik, and adds

eighty-two to the thirty collected by Forstrom and Lindblohm.

#### OVARIAN PREGNANCY (?) OF EIGHT YEARS' DATE.

CONDAMIN (*Lyon méd.*, 1902, March 2) relates, as a case of ovarian pregnancy the following: In a woman of 39 all the signs of normal pregnancy developed, the enlargement of the abdomen was, however, somewhat more marked on the right side; pains came on about nine months after the cessation of her menses and she thought herself on the point of being delivered; the labour proved a false one, and after some days the pains ceased, the enlargement of the abdomen remaining. A year later a surgeon made a diagnosis of fibroma, and recommended an operation which was declined; the catamenia had become regular again, and the abdomen seemed to be getting smaller. Six years afterwards she was admitted into the Charité Hospital at Lyons; the right side of her abdomen was then found distended by a tumour of woody, or rather calcareous, hardness, and the diagnosis made was "extrauterine foetation probably with a lithopædion." A whitish mass was enucleated from behind the right broad ligament, after laparotomy; the uterus, displaced to the left, was otherwise normal, as were both tubes and the left ovary, but not a trace of the right ovary could be found. The cyst contained a well-developed, and apparently full-term, foetus, without any sign of putrefaction. Microscopic examination did not disclose any ovarian tissue in the wall of the cyst, but the structure of the wall must have been much modified by the prolonged pressure to which it had been subjected, moreover the specimen had been some time in Muller's fluid before being cut into sections. Otherwise, he claims the case fulfils Lawson Tait's conditions for acceptance as an ovarian pregnancy.

#### AN EXTRAUTERINE PREGNANCY OF THIRTEEN YEARS' DURATION.

POROSCHIN, Taschkent (*Centralb. f. Gyn.*, 1902, No. 38), reports: On April 27, 1900, a woman of 38 came to him complaining of fever and severe abdominal pain. Her temperature was 39.6° C., her pulse small; her abdomen, somewhat distended, was tender, especially in the lower part where there was a painful elastic tumour the size of a child's head; this tumour lay chiefly in the right pelvic cavity but extended three fingers' breadth above the navel; to the

left but in connection with this tumour there was also a hard mass the size of a pear. The uterus was retroflected and displaced to the right and was firmly attached to the tumour; examination was very painful, and there was a muco-purulent vaginal discharge. The patient had been married for twenty-one years and had had two children; both confinements were normal. A year after the birth of her last child, that is to say, fourteen years ago, the patient found herself again pregnant, and on account of severe pains, abdominal and sacral, was for some time under treatment in Slavianski's Klinik; she quickened in the fifth month, but from the sixth her menses recurred regularly and the movements of the child were no longer felt, and her abdomen became smaller. Up till a year ago she felt well, but then began to suffer from fever, debility, and loss of appetite, and in January, 1901, pain came on in defæcating, and on examination a bone was found in the motion; in February she passed another bone, and in April, with very severe pain, several more. Extrauterine pregnancy in retrogression, with suppuration of the sac and the formation of an intestinal fistula was diagnosed, and laparotomy was performed. The tumour originated from the left tube; the uterus was at the right side of the back of the small pelvis. As the tumour was very firmly adherent, especially to the intestines behind it, the contents were evacuated and the sac was stitched in the abdominal wound. The tumour contained foul gas and filthy liquid with flocculent pus and the degenerated placenta and membranes incorporated with the sac wall behind. Another bone was found in the rectum, but the intestinal fistula was not made out. The cavity was plugged with iodoform gauze and the abdominal wall stitched in three layers. The patient made a good recovery, feeling comfortable in spite of the fistula which remained.

#### DOUBLE PREGNANCY IN A UTERUS BICORNIS.

MAIRE (*Bull. Soc. d'Obstétrique de Paris*, 1902, Jan. 16), in a primipara in whom there had been one omission of the menses, found a very strong septum in the vagina, and, above the symphysis, two masses each as large as a fist and movable independently of the other; one of these masses was hard and the other soft, and his diagnosis was "uterus duplex with pregnancy on one side and myoma on the other." He divided the vaginal septum, and in four months the patient

aborted from the side supposed to be myomatous. In the seventh month labour came on in the other side of the uterus and a child of  $5\frac{1}{2}$  lbs. weight was delivered, the forceps being used as the pains were feeble. The uterine bodies were then found to be quite independent; there were two cervixes united like the barrels of a double gun.

#### METABOLISM IN OSTEOMALACIA.

\* V. KORCZYNSKI, Cracow (*Wiener med. Presse*, 1902, No. 23), concludes from the investigation of two cases, that though the elimination of uric acid greatly exceeded the normal amount on some days, the average quantity was within the physiological limit. The net balance of nitrogen was alternately positive and negative. In cases not too far advanced the phosphoric acid is retained in the system; its discharge in these was so far abnormal that the amount in the fæces was increased and that in the urine diminished. The quantity of lime excreted is often increased, and if so, more is discharged by the bowel and less in the urine. The persistence of such anomalous excretion was unfavourable for diagnosis, a return to normal elimination indicated a tendency to improvement.

#### THE DURATION OF PREGNANCY.

FUETH, Leipsic (*Centralb. f. Gyn.*, 1902, No. 39), referring to the limits set by the Berlin statutes to the possible date of conception, as being from the 181st to the 302nd days before the birth of the (viable?) child, and to the objection taken to these limits by v. Winckel, who proved from his clinical material that the lower limit of intrauterine life should be 240 and the upper 336 days, draws attention to the conclusions of a dissertation by Enge of the Leipsic Klinik, which absolutely confirm the statements made by v. Winckel. As the facts are in direct contradiction to the statute, it is for jurists to decide what attitude they will assume upon the question.

ZWEIFEL, remarking upon Fueth's article, quotes four instances from Enge's thesis in which women carried children more than 302 days from the date of conception, that is to say, 304, 305, 312, and 319 days respectively. He therefore thinks that the section of the statutes which deals with illegitimate children must be supplemented, and the limit of 302 days be extended for large children, that is, for such as exceed 4,000 grammes weight and 52 cm. in length.

## SYPHILIS AND PREGNANCY: SUPERFOETATION.

PRUNAC (*Montpélier méd.*, 1902, February 16) relates the following case: A woman of 24 aborted, for the first time, five months after her marriage to a man who two years previously had contracted syphilis. Proper treatment, which he had not previously received, was now prescribed for him, nevertheless his wife, ten months later, again aborted at three months, and the man then confessed that the measures prescribed had not been carried out. When the woman conceived for the third time both she and her husband were put under regular treatment, and at the expected time, eight months after the first omission, she was delivered of a child which was, however, macerated and evidently syphilitic. The woman's abdomen remained large, and the presence of a second child was recognised, but the labour had stopped, and it was not till a month later that this second child, which was perfectly formed and exhibited no signs of disease, was born.

Prunac takes this to be an instance of superfoetation. At the time of the impregnation which led to the delivery of the dead and diseased child, the husband had not yet submitted to the treatment under the influence of which he was, at the time of the second, able to beget a healthy child. A somewhat analogous case related by Pinard is mentioned: A woman on the same day had relations with her ordinary lover and with another man, a syphilitic; she bore two children, one of which was perfectly healthy, the other diseased.

## THE HÆMATOMATOUS MOLE, AND HYDRAMNIOS.

DAVIDSOHN (*Archiv f. Gyn.*, Bd. lxx., S. 181) has investigated two specimens sent for examination to Professor Landau's Klinik. The most prominent peculiarities of these anomalous products of conception are, on the one hand, the presence of numerous polypoid hæmatomatous vegetations inside an amniotic cavity of limited dimensions, and on the other, the want of proportion between the size of the ovum and that of the embryo. These peculiarities have been explained by Breus upon the supposition that after the early death of the embryo, the membranes continue to develop but that, in consequence of the resistance of the uterine wall they, while doing so, form folds and stalked projections into the amniotic cavity. Davidsohn points out that the chorionic

villi are so nearly normal in consistence that the hypothesis of an extremely premature arrest of the foetal circulation cannot be sustained, the less so as he was able to demonstrate the presence of vessels in some of the villi; moreover, that the amnio-chorionic membrane, independently of the vegetations found on its inner surface, is thrown inwards in a series of folds; and finally, that the coagulations of blood which elevate the membrane, judging from the age of the fibrinous deposits forming them and their festooned edges, seem to have undergone some retraction. He is therefore led to conclude that the membranes must at some time have presented a much more developed condition than the limited size of the amniotic cavity and the growth of the foetus would lead one to suppose. Now the only pathological condition which could lead to the distension of the membranes and at the same time to the atrophy of the foetus, is hydramnios. If in a young ovum hydramnios should occur from any cause whatever, and the foetus should atrophy and die without abortion taking place, and the liquor amnii be absorbed or perhaps escape, the diminution of the internal pressure and consequent congestion of the perichorionic network of vessels might be so great as to lead to thrombosis and interstitial hæmorrhage. Hæmatomata would thus be formed and go on increasing with the progressive diminution in the amount and tension of the amniotic fluid, and gradually would wrinkle up the membrane towards the cavity; and the end of this process would be the formation of polypoid masses filling up the interior.

#### THE USE OF POTASSIUM CHLORATE IN THE TREATMENT OF CASES OF HABITUAL DEATH OF THE FŒTUS IN THE LATER MONTHS OF PREGNANCY.

JARDINE (*B. M. J.*, 1902, ii., p. 1137), at the recent Manchester meeting, read a paper entitled as above, with illustrative cases. He pointed out that though the action of the drug is not, as supposed by Simpson, due to its parting with its oxygen to the maternal, and so promoting the oxygenation of the foetal blood, its effect upon the endometrium is beneficial, and that in non-syphilitic cases of habitual death of the foetus in the later months of pregnancy, he had obtained excellent results. He recommended that it should be given in 10-grain doses three times a day after food, commencing at the end of the third month. The allegations as to its dangerous effects, so given, had proved



to be entirely fallacious. In his experience this treatment had been more successful than inducing labour before the probable time of death; in two instances the child, delivered alive, had died within a few days.

REMY, Nancy (*Semaine Méd.*, 1902, No. 39), in similar cases begins the administration of the drug directly there is any suspicion of pregnancy, and continues it throughout, but in much smaller doses (0·2 grms. daily diminished in the later months to 0·15 grms.); in this way he has been able to conduct pregnancy to term in a number of women who on previous occasions had invariably aborted.

#### THE MEDICAL INDICATIONS FOR THE INTERRUPTION OF PREGNANCY.

SIMPSON, Edinburgh (*Semaine Méd.*, September 24, 1902), at the recent International Congress at Rome, classifying the above as *fœtal* or *maternal*, said that among the former the most important was *habitual death of the fœtus*, and if in previous pregnancies the product of conception has perished at a definite period, it would not be improper to interrupt the pregnancy before that period. Maternal indications were met with in two classes of cases (1) in women, subjects of a disease, pre-existing or intercurrent, the prognosis of which was made more unfavourable by the pregnancy, or which was such as to modify the prognosis of the gravidity itself; (2) in the second class, the development of the pathological lesions was in still closer connection with the gravid state; in one or other of these two classes, tuberculosis, hyperemesis, some kinds of placental hæmorrhages, or the nephritis of pregnancy, might justify and be benefited by the induction of labour.

PINARD affirmed the right of a physician to intervene in any way he might think best for the patient entrusted to his care, and therefore to interrupt a pregnancy without any hesitation upon religious or professional grounds; his own opinion was that one ought not to have recourse to such an extreme measure unless the life of the mother was in peril, and that of the fœtus, apart from such intervention, was past hoping for. Such might be the case in internal hæmorrhages with a pulse of more than 100 a minute; in dropsy of the amnion; in molar pregnancy; in the more severe intoxications of pregnancy, and in advanced lesions of the circulatory or urinary system accompanied by threatening symptoms. Chronic disease of the respiratory organs he



did not look upon as an indication ; in ten years there had only been twenty cases among 22,708, in which he, personally, had interrupted a pregnancy.

SCHAUTA, though he gave prominence to *disease of the heart* as an indication for the interruption of pregnancy, opined that 95 per cent. of women so affected were capable of enduring the fatigue of gestation without serious inconvenience. Mitral stenosis was the most threatening form of heart disease, and when there was any evidence of deficient compensation interference should not be delayed. Valvular lesions, if compensated, were not an indication save when the woman in a previous pregnancy had been in danger of dying from her heart disease ; even when not compensated they were not so till medical treatment had proved insufficient. Schauta was also in favour of intervention in *acute tuberculosis*, especially of the larynx, in the earlier months ; in the miliary forms he intervened as soon as the foetus was viable. On the other hand, he saw no advantage in cutting short a pregnancy, already well advanced, in case of advanced tubercular disease. In cerebral tumours, hemiplegia and tetanus, if the life of the mother was lost, intervention was necessary in the interest of the child ; in albuminuria, and in nephritis, appearing before the eighth month, the interruption of the pregnancy was, he thought, justified, as also generally when a milk regimen was without effect, the kidney disease in the chronic stage and the foetus absolutely viable ; this was also his view in eclampsia, when medical treatment had failed and the fits, becoming more and more frequent, ended in coma. Indications might also be given by grave albuminuric retinitis, by intense chloro-anæmia, or by extreme cachexia, but chorea, pneumonia, pleurisy, or pneumothorax did not call for the interruption of pregnancy any more than appendicitis, biliary calculi, or operable tumours, &c., which should be dealt with as in a case where there was no pregnancy.

HOFMEYER spoke in regard to renal affections only ; in *chronic nephritis* the risk of eclampsia was not great, but in his opinion the effects upon the system and the dangers of the death of the foetus were so serious that one ought in the interest of the mother to end the pregnancy, at any period, as soon as the ordinary means of treatment had proved insufficient ; the *nephritis of pregnancy* did threaten eclampsia and, for that reason alone, necessitated interference, however little the patient might appear to be deteriorating ; acute nephritis did not do so.

REIN, of all the appointed speakers, was the strongest advocate of intervention, especially in *nephritis* and *cardiac disease*. Otherwise the speakers practically agreed that the indications for interrupting pregnancy for medical reasons could not be definitely formulated, but must be drawn for every individual case; HENROTAY, however, declared that religious and professional factors must be taken into account; GUTIERREZ, that "*habitual death of the fetus* without appreciable cause," was an absolute indication to end the pregnancy; and LA TORRE, that such intervention should never be undertaken without consultation with a colleague.

#### COLPEURYSIS: THE VAGINAL USE OF BRAUN'S BAG IN LABOUR.

VOIGT (*Archiv f. Gyn.*, Bd. lxvi, S. 124) supplements Rosenstein's article on "Contracted Pelves and Colpeurynter" by an examination of all the cases in which the colpeurynter has been used in the Dresden Frauenklinik since 1895. With increasing experience they have there had fewer disappointments in the use of Braun's elastic bags, of which three sizes are in use. It is, however, essential that a bag of the suitable size should be chosen, and that judgment should be used in its distension; it should, after insertion and filling, be capable of being indented by the finger. The pains should have commenced and even if weak, be regular, and the bag should be retained for from six to eight hours, or until it is expelled; the patient's knees may, if necessary, be tied together. He concludes that colpeurynter with Braun's bag tends to preserve the membranes and, even if they have given way, to save the escape of the waters; it helps to prepare the soft parts and strengthens the pains when they have already begun, but it does not bring on the pains or promote the dilation of an os narrowed by cicatrices, nor, in placenta previa, does it form as good a plug as strips of gauze or wadding.

The more frequent use of the colpeurynter, even when the pelvis is normal, is to be desired, as it often renders obstetrical operations unnecessary, or improves the conditions under which they have to be performed, and thereby improves the prognosis for both mother and child; it has no unfavourable influence on the course of childbed.

#### THE INTRAUTERINE USE OF THE COLPEURYNTER.

STROGANOW (*Centralb. f. Gyn.*, 1902, No. 28), in introducing this subject for discussion at the Eighth Pirogow

Medical Congress at Moscow, drew the following conclusions: Metreuryesis is a much more complicated proceeding than the introduction of bougies into the uterus. The mother is, by it, subjected to the danger of air embolism, the position of the child is changed, and the presenting part displaced, but it is a sure means of eliciting or strengthening uterine contractions, a very good method of dilating the os uteri and cervix, and as long as there is no traction (but not otherwise) the dilation of the parts is a physiological process. Metreuryesis is also a very good method of supplying the loss of the bag of waters prematurely ruptured in cross births; it acts chiefly by stimulating the internal surface of the uterus; it is indicated whenever premature labour has to be induced rapidly, and it may be employed to prepare the genital canal in normal labour when some complicating maternal disease or dangerous condition for the child necessitates a speedy delivery. In prolapse of the cord it may sometimes save the life of the child by preventing the head from compressing the cord against the pelvis. In eclampsia and placenta previa the use of the colpeurynter must be very limited.

#### RAPID DILATION OF THE OS UTERI (BOSSI'S).

KNAPP, Prague (*Muench. med. Wchns.*, 1902, No. 42), at the Carlsbad Congress, referred to the excellent results that had been obtained in Leopold's Clinic by Bossi's method, in cases of placenta prævia and of eclampsia. Bossi himself had applied it in 120 parturient women of whom 38 were eclamptic. Knapp believed that even in articulo mortis it might offer an alternative to Cæsarean section, and that by it premature labour might be successfully induced in from two to three hours. There was, however, some doubt expressed as to the injuries it caused, either by the direct pressure of the blades or by over-stretching of the tissue between them; Leopold had not met with any dangerous accidents. Bossi's instrument was, however, very expensive, it was difficult to manipulate, and the expansion of the blades was not perfectly uniform, Knapp had therefore had an instrument constructed which was not only more handy but less costly, while the arrangement for opening out the blades differed from that in Bossi's instrument, and secured a more uniform dilation of the cervix.

KAISER, Dresden (*Centralb. f. Gyn.*, 1902, No. 41), instead of Bossi's instrument, recommends a new one with eight

blades, and perfectly easy to take to pieces for sterilisation. He states that with it an unopened os can, in twenty-five minutes, be dilated to a circumference of 34 cm. He holds that the proceeding is indicated only when rapid delivery is indispensable, and chiefly in eclampsia, and that for the induction of labour the metreurynter is to be preferred.

#### ALBUMINURIA IN LABOUR.

ZANGEMEISTER (*Archiv f. Gyn.*, Bd. lxvi, S. 413) has found from examination of numerous cases of pregnancy, labour and childbed, in the University Frauenklinik of Leipsic, that the amount of urine secreted increases towards the end of pregnancy, and goes on increasing until labour comes on. During labour secretion is carried on at about one-third the rate of the last month of pregnancy; after delivery there is again an increase, and the amount then gradually sinks to normal. About 40 per cent. of all pregnant women have at all events transitory albuminuria during the last three months of gestation, and from 4 to 5 per cent. casts also. These symptoms are commoner and more marked near the term, are indeed so frequent that there is no pathological significance in small amounts of albumen without casts, during the last months of pregnancy, nor even in casts during labour. Women who have had albuminuria during pregnancy are more likely to have it during labour, though it depends essentially on different causes—during pregnancy upon disproportion between the volume of blood and the capabilities of the kidneys, during labour upon the increased blood pressure caused by uterine contraction.

#### THE CONDUCT OF LABOUR IN CONTRACTED PELVES.

KROENIG (*Muenchener med. Wchns.*, 1902, No. 32), in an address to the Leipsic Medical Society, pointed out that in the conduct of labour in contracted pelves we have to take into account not merely the amount of contraction, upon which alone the indications were formerly founded, but also the size of the foetal head and its capability for moulding, and the force of the uterine contractions, and that, while we had no means of accurately measuring either the dimensions of the pelvis or the size of the child's head, we were, at the beginning of labour, absolutely ignorant of the possible force of the uterine contractions. He therefore considered

the observation of the course of the labour to be the most important factor in forming an opinion as to whether the disproportion between the head and the pelvis was too great to allow of spontaneous delivery. From a critical and statistical examination of the various methods by which it had been hoped that the prognosis for both mother and child might be improved, he concluded that neither the induction of labour, the high forceps operation, nor prophylactic version were to be relied upon, and that were we not to be content with expectative treatment with, if necessary, cranioclasm on the living child in the interest of the mother, there were only two ways of giving a better chance to the child, that is to say, symphyseotomy and Cæsarean section. Symphyseotomy perhaps more than any other operation allowed the strictest indications, the most prolonged observation of the course of labour, and complete dilatation of the os uteri. It was not necessary to divide the symphysis till, after waiting for some time after the rupture of the membranes, to see whether the uterine contractions would not after all press the still presenting head down through the pelvis, one was convinced that without interference the birth of a living child was impossible.

With a conjugata vera of less than 6.5 cm., symphyseotomy need not be thought of, but the question whether this operation or Cæsarean section should be preferred when the conjugata vera exceeded this limit, had not yet been definitely decided.

Symphyseotomy is a serious operation, only to be undertaken by one who is not only a good surgeon but also a good obstetrician; Cæsarean section is a far easier matter. Symphyseotomy does not insure the birth of a living child because, according to the views held at both Zweifel's and Morisani's clinics, it must be looked on as merely a preparatory operation, not like Cæsarean section, always admitting of the delivery of the child within a few minutes; but symphyseotomy has, admittedly, the great advantage that the union of the pubic bones remains extensible, so that in any subsequent labour the child will very probably be born spontaneously. He reminded them that Abel, in reporting to the Society on the permanent results of symphyseotomy and Cæsarean section, had concluded that even after symphyseotomy the patients recovered their working powers, and that it would be a mistake to condemn the operation summarily.

As Cæsarean section and symphyseotomy had still a mor-

tality of about 2 per cent., the question arose whether the mother was entitled, in her own interest, to decline these operations when her child was still alive. While Pinard denied the mother the right of doing so, a large number of German obstetricians admitted that she might demand cranioclasys, even though the child were alive. At a recent discussion in the Berlin Medical Society, Kossman pointed out how very indefinite the law stood on the question; the medical attendant might be convicted on the one hand of murder if he performed cranioclasys on the living child, and on the other, of manslaughter, if the mother died after symphyseotomy or Cæsarean section performed without consent.

Nevertheless, considering the improvement in the mortality after symphyseotomy and Cæsarean section, it seemed desirable, from an ethical standpoint, that these operations should be performed more frequently, and that the child's right to life should be more fully recognised in Germany as elsewhere.

#### HEBOTOMY.

VAN DE VELDE, Haarlem (*Centralb. f. Gyn.*, 1902, No. 37), prefers the above term to describe the extramedian division of the os pubis at one side of the symphysis, an operation generally known under the hybrid name "pubiotomy," and one which, thanks to asepsis and antisepsis and to the Kusy-Gigli wire-saw, has lately been brought into notice in almost the exact form in which it was suggested, and practised on the cadaver by Bar-le-Duc and by Stoltz.

In 1894, GIGLI, Florence (*Ann. di ost. e. gin.*, October), commented on the danger of infection and hæmorrhage which attended symphyseotomy, and recommended that the ring of the pelvis should be divided to one side of the symphysis in order to avoid the plexus of blood vessels and because the connective tissue, to be then cut through, was not in such close relation to the lymph-spaces and channels of the broad ligament as that directly between the symphysis and the bladder. To effect the division he recommended his wire-saw, which by means of a suitably bent needle and thread of silk could be carried round the bone without difficulty. Fever, or any sign of existing infection in the parametrium is a bar to the operation.

The operation has since then been successfully performed at least five times, by Bonardi in 1897, by Calderini in 1899,

by Gigli himself in 1902, and twice by van de Velde in 1901 and 1902. Five children were delivered alive and the mothers all recovered without any persisting injury.

Van de Velde gives the account of his two cases in detail. In the first he was not summoned till the woman had been twenty-four hours in labour; there was danger of rupture, the child was alive, and there was some reason to fear infection. He made an incision through the soft parts from the left spine of the pubis to a point on the outer side of the labium majus at the level of the vestibulum, and led his saw under and round the bone as Gigli proposed, and divided the bone. An opportune pain at once drove the head into the brim, and by pressure followed by the low forceps he promptly delivered a child (4,500 g., 54 cm.) slightly asphyxiated but soon and perfectly revived. In spite of a slight phlegmasia alba of the left leg the woman made a good recovery and was discharged on the eighteenth day. In the second case the child was delivered by version and extraction; there was some atony of the uterus, but he had no cause during the patient's recovery for a moment's anxiety. He describes the operation as an ideal one, simple, easy to perform (van de Velde found his first hebotomy on the living woman a much easier affair than his first symphyseotomy on the cadaver), and rapid in execution; hardly more than three minutes from the beginning of the incision to the complete division of the pubis. The separation obtained is ample. As additional advantages of this operation compared with symphyseotomy he mentions that: (1) as the saw cut is not in the median line the normal support of the bladder and urethra is not affected; (2) as the soft parts are much thicker at the side than in the median line there is less danger of the wound tearing through into the vagina; (3) on that account and because the clitoris is not touched there is much less danger of alarming hæmorrhage; (4) too great separation of the ends of the bone is prevented by the pull of the adductor longus and that of the gracilis; (5) immediate healing is more likely between two smooth ends of bone than after the division of a joint, and in the latter the danger of infection is also more serious.

It is perhaps a disadvantage that in hebotomy the wound lies near the great femoral vessels and, should there be a hæmatoma or infection, œdema of the leg on that side is more probable. In conclusion, he says he would not perform the operation of hebotomy where the C.V. was less than



7 cm., but that it is one to be welcomed, as increasing the child's chances, as less dangerous for the mother, as not over difficult for the obstetrician, and as a most valuable acquisition in the treatment of labour in the contracted pelvis.

#### THE WAY A RECTO-VAGINAL LACERATION TAKES PLACE DURING A SPONTANEOUS LABOUR.

KIEN, Strasburg (*Monats. f. Geb. u. Gyn.*, Bd. xv., Heft 4), describes the gradual occurrence of a recto-vaginal tear during labour in a primipara aged 40. The perineum was tightly stretched, as was also the mucosa of the anterior wall of the rectum, which was extruded to the extent of from 4 to 5 cm. Episiotomy did not in any way relieve the tension of the rectal mucosa which gave way for about 4 cm., gaped and exposed the muscular tissue. This laceration was found, after delivery, to extend into the vagina, and easily admitted three fingers, while the perineum in the middle line was quite intact. In another case the laceration affected only the rectal mucosa and the posterior part of the perineum. Freund also has seen a laceration take place in this way from without inwards, beginning in the mucous membrane of the wall of the gut, extending to the muscular tissue and so into the vagina.

#### RUPTURE OF THE UTERUS.

LAFOURCADE, Bayonne, reported a case to the Académie de Médecine (October 7, 1902) of a multipara of 42, who, during a tardy labour, was seized with violent pain and a feeling of something giving way in her abdomen; the uterine contractions ceased, laparotomy was immediately performed, the child extracted from amidst the intestines, and the uterus amputated above the vagina. The woman was well in three weeks. The rupture extended for 12 or 13 cms. between the folds of the left broad ligament and for 5 or 6 cms. above the isthmus along the anterior face of the uterus. The uterine tissue seemed to be quite normal save for some nodules of embryonal cells, perhaps to be attributed to slight interstitial myositis, which Richelot, in commenting on the case, said was very little to account for such a formidable accident in an apparently healthy woman who had already had four normal confinements.



## RUPTURE OF THE UTERUS; HYSTERECTOMY; GASTRIC LAVAGE.

KLEINERTZ, Stuttgart (*Centralb. f. Gyn.*, 1902, No. 40), reports a case of spontaneous and complete rupture of the uterus in a small debilitated woman of 39, who had had eight easy and normal labours, followed by two abortions, both running the usual course, eighteen and fifteen months before the present labour. The woman was roused from sleep by the onset of the pains, and the waters broke while her husband was calling the midwife; almost immediately after the waters the woman was seized with violent pain in the abdomen. The midwife found the portio still present; certain dragging pains which followed were set down to uterine contraction, but as labour did not advance a doctor was summoned who diagnosed the rupture and summoned Kleinertz. The woman bore the transfer into hospital well, her pulse and temperature remaining normal. Fifteen hours after the rupture Kleinertz opened the abdomen; the child was in the peritoneal cavity, the placenta protruded out of a clean tear in the uterus extending from the middle of the left side down to the inner os, a second tattered laceration ran from the bottom of the former across to the right side of the womb; the left uterine artery, intact, was exposed, as if torn out of the parametrium; the uterus was fairly contracted and there was not much blood in the peritoneal cavity. Kleinertz amputated the uterus above the cervix; before closing the peritonéum over the cervical stump he passed a strip of iodoform gauze through it into the vagina. Celluloid twine was used for ligatures as well as for sutures, and the abdominal wound was secured by triple suture. The woman did well except that on the third day her stomach had to be washed out and an enormous quantity of old residual food extracted from the dilated viscus on account of obstinate vomiting. On the eleventh day after the operation there was a slight rise of temperature which continued a few days and was set down to some irritation in the stump of the left adnexa, but the patient left the hospital well five weeks after the hysterectomy.

Kleinertz can offer no explanation for the rupture; the previous labours exclude any abnormality of the pelvis, and the woman had never undergone any intrauterine treatment. Macroscopically the amputated uterus did not, even at the seat of the rupture, seem in any way peculiar, nor did

microscopical examination reveal any departure from the normal structure. All that was noticeable was that, at certain spots, the muscular fascicles seemed to be separated by a delicate homogeneous scaffolding of tissue. Of course the uterus had been weakened by the eleven pregnancies, and the patient was in a very badly nourished and worn-out condition.

#### NORMAL LABOUR AFTER PUNCTURE OF AN OBSTRUCTING DERMOID CYST.

TOTH, Buda Pesth (*Orvosi Hetilap*, 1902, May 11), reports the following case from Professor Tauffer's Clinic: A woman of 27, who for five or six years had been conscious of an abdominal tumour, finding herself pregnant and fearing that there might be some difficulty in her labour, sought advice. There was a normal pregnancy of eight months and the foetus was alive, but in front of the sacrum and pushing the lower part of the uterus upwards and forwards there was a firm inelastic tumour as large as two fists and hardly movable. In view of the risk a recent abdominal cicatrix would be in labour, no operation was attempted, though it was evident that at term, unless the size of the tumour was lessened, the child must be sacrificed. When labour came on the obstruction prevented the engagement of the head; the cyst was therefore punctured, about half a litre of fluid escaped, and the head descended and delivery took place without accident. It was afterwards ascertained that the tumour had become quite small and that it contained some particles of bone, but there was no intention to proceed to any radical treatment unless there should be further development. A similar, but fatal, case is reported by MACAULAY (*Lancet*, November 8, 1902).

#### RELAXATION OF THE PUBIC SYNCHONDROSIS FOLLOWING NORMAL LABOUR; RESECTION AND WIRING; RECOVERY.

SCHENCK (*Amer. Med.*, 1902, September 27) reports the following case of Howard Kelly's. A strong, healthy woman of 31, married thirteen years and the mother of three children, had phlebitis eleven years back after the birth of her first child, but otherwise her confinements had all been normal. Her youngest child was born eight months ago; when five months pregnant with it she began to suffer, especially after exercise, from hypogastric pains, which increased in severity

towards term. The labour was more difficult than the previous ones, the head presented, the second stage lasting four and a half hours, the child weighed 10 lbs. The first time she turned in bed she felt a sharp pain in the lower abdomen, with a grinding pain in the symphysis. She got up on the fourteenth day (without advice) and had the same painful sensations on trying to walk, and even sitting was so distressing that she passed much of the next six months in bed. When admitted to the Johns Hopkins Hospital on May 10, 1902, she could walk but a short distance without great distress, feeling "scrunching" pain over the symphysis at each step. The pubic bones were movable, one above the other, to the extent of 1 cm.; the pelvic measurements were normal, and physical examination negative. On May 12 a sound having been placed in the urethra, Kelly made a perpendicular incision over the symphysis, exposed and divided the fibro-cartilage, obtaining a separation of 6 cm., freed the bladder and then cut off the cartilage and about 1 cm. of the bone on each side, passed three sutures of strong silver wire through the ends of both bones which he was able to coapt perfectly by twisting the wires, and closed the wound with catgut. A retention catheter was left in the urethra, and the patient was placed in a Bradford frame answering the purpose of an Ayers' symphysiotomy hammock; in this she remained for five weeks; after two more weeks in bed she got up, and when discharged on July 29, she was able to walk without any discomfort. For ten days after the operation she had frequent attacks of vesical spasm, perhaps due to inclusion of the bladder in one of the catgut sutures; there was no cystitis. Aluminium-bronze wire sutures had been used before the silver ones, but, owing to their having been kept in contact with bichloride of mercury, they proved too brittle to bear twisting.

The case is interesting from the severity and duration of the symptoms and their complete relief by operation. Moreover, rupture and relaxation of the symphysis pubis during labour are comparatively rare accidents. Thus there were only three cases in 30,000 deliveries at Schauta's Vienna Klinik, and Savor observed it but three times in 64,149 confinements at Chrobak's. In 1876 Ahlfeld made the first extended report, and collected 100 cases. Schauta added 12 more in 1889, while De Lee (Chicago), writing in 1898, gave an excellent consideration of the whole subject, bringing the cases up to date and giving additional references. The

catalogue of the Surgeon-General's library, together with the articles of Ahlfeld and De Lee, give 159 references—practically the complete bibliography of the subject. Nine more recent references are given by Schenck.

Separation of the pubic cartilages occurs much more frequently in multiparæ, particularly in women who have borne more than three children, than in primiparæ. When occurring in primiparæ it is usually in those in the third or fourth decade of life. A large percentage of cases have occurred in difficult labours, during a version or forceps delivery. A generally contracted pelvis has most frequently been found. An actual rupture often takes place with a loud, cracking sound. Relaxation of the ligaments, allowing the bones to slip upon one another, may not be discovered until after confinement, usually when the patient first moves herself in bed. The chief symptoms are pain over the pubic arch, pain while lying in any other position than on the back, and pain and difficulty in walking. Dührssen reports twenty-three cases in which suppuration took place, destroying the articular cartilages. Simple measures, such as strapping with adhesive plaster, or the application of a tight bandage over the hips usually suffice to keep the tissues in position until union takes place, and when there is no infection, this generally occurs in from four to six weeks.

#### TAMPONADE OF THE PUERPERAL UTERUS.

CHROBAK, Vienna (*Wiener kl. Wchns.*, 1902, No. 38), recognises that, though the first indication is always the complete arrest of hæmorrhage, if possible by suture, in many of the exigencies of practice, tamponade is justifiable. When tried at his own Klinik, there were among twenty-seven patients three deaths, but in only one of the cases had hæmorrhage recurred after properly applied tamponade. The exact and complete plugging of the uterine cavity is the cardinal point, and is best effected by hand and not by instruments such as ovum forceps or the like. Continued observation of the patient and regulation of the uterine contractions is absolutely indispensable.

#### PYOMETRA IN A UTERUS BICORNIS PUERPERALIS.

SENGER, Krefeld (*Berl. kl. Wchns.*, 1902, No. 33), reports that a large tumour in a woman of 25, the nature of which could not be diagnosed, was, upon operation, found to be

a collection of pus in one horn of a bicorned uterus. At a second operation this horn was extirpated, the other, which was healthy, being left.

PUERPERAL PYÆMIA DUE TO STAPHYLOCOCCI ONLY.

V. MAGNUS, Koenigsberg (*Centralb. f. Gyn.*, 1902, No. 33), describes a case in which suppuration occurred in the shoulder-joint, mamma, the lower lobe of one lung, and in one thigh, secondary to infection of the uterine cavity during labour. Bacteriological examination of the uterine secretion and the metastatic foci gave pure cultures of the staphylococcus pyogenes aureus; he has found nine analogous cases recorded, four of which are not open to any objection. It is not yet decided whether any micro-organisms except the white and yellow staphylococci, the streptococcus pyogenes, the B. coli and Fraenkel's pneumococcus, can cause puerperal pyæmia, but as regards diagnosis and prognosis no distinction can be drawn between cases due to the streptococcus and staphylococcus.

UTERO-OVARIAN THROMBOSIS AFTER ABORTION, EXTENDING TO THE VENA CAVA AND HEART.

HOCHE (*Ann. de Gyn. et d'Obst.*, May, 1902) reports: A woman of 31, who had been pregnant nine times previously, and had on eight occasions gone to term, was brought to the hospital a week after an abortion which had interrupted her tenth pregnancy in the fourth month; the foetus had been discharged, but not the secundines. She was in a very grave condition; temperature 40·5°, pulse 130, with rigors and pallor, and the artificial removal of the placenta brought little improvement. Three days later she had a severe rigor, and the followning day greenish pus was found at the external os. Under antiseptic injections she improved to some extent, but on the sixth day after her admission she had another severe rigor and complained of acute lumbar pain; her temperature rose to 39°, and the network of veins on the abdomen became extremely prominent, especially on the right side. In spite of curettage under chloroform, the fever and rigors persisted, and six days later a systolic murmur was, for the first time, detected at the apex of the heart, and signs of congestion and oedema at the base of each lung; diarrhœa soon came on, her condition became worse and worse, and she lapsed into per

manent somnolence. On the eighteenth day the urine suddenly diminished to 600 grms. and presented clouds of albumen; oedema came on gradually, first in the legs without any phlebitic cords, then in the abdomen; she sank about a month after her admission.

At the autopsy, a thrombosis was found which, starting from the right utero-ovarian veins, had extended along the inferior vena cava through the right auricle and ventricle into the pulmonary artery; the coagulation had, moreover, gone backwards into both iliac veins, especially the right, and had caused the thrombosis of the right renal vein, as well as the partial obstruction of some of the subhepatic vessels and small hæmorrhagic foci in the liver. There were infarctions of the lungs and kidneys, due to emboli carried from the large clot. Bacterial examinations of the blood made during life were negative, and all that could be determined after death was the isolation of a very few cocci, indefinite but apparently gonococci.

Hoche supposes that the extension of the thrombus after a preliminary uterine stage was intermittent, that when it reached the vena cava it caused the lumbar pains; death was due jointly to the uræmic symptoms consequent upon the renal mischief and to the pulmonary infarctions.

CHIARI (*B. M. J.*, 1902, ii., Ep. No. 173) reports a fatal septic thrombus of the common iliac in a quintipara of 28; detachment of a portion of it, due to exercise too soon after delivery, apparently led to generalised sepsis (streptococci), with pleurisy and nephritis, and death in the fourth week.

#### HYSTERECTOMY IN THE TREATMENT OF PUERPERAL INFECTION.

FEHLING, Strasburg (*Lucina*, October, 1902), in opening the debate on this question at the Fourth International Congress of Gynæcology and Obstetrics at Rome, distinguished between intoxication and infection in puerperal disease. In intoxication or sapræmia the focus of disease was limited to the uterus, in infection it was very rarely so limited, but for the most part we had to deal with a grave puerperal infection of the entire organism. In general septicæmia the extirpation of the puerperal uterus offered no probability of success and should not be attempted. No rational indication for such a proceeding could be found unless the focus of infection or intoxication was limited to the uterus, that is to say, in case of retention and decom-

position of the placenta, or parts of it; in putrefaction of myomata during childbed or of ovular remnants after abortion, when it was impossible to remove such in any other way. The indications for such intervention were therefore extremely rare.

In exceptional cases of uterine phlebitis, hysterectomy might be of use if it were combined with the ligature or exeresis of the thrombosed veins of the broad ligaments, and of the utero-ovarian veins. The operation might therefore be performed in exceptional cases.

LEOPOLD (Dresden) said that hysterectomy was not indicated in grave puerperal infection unless all the symptoms showed that the only seat and active source of the infection was in the uterus, and then only when all other means of treatment had proved useless. Such cases were most likely to be those in which the placenta was retained in the uterus, was undergoing decomposition and could not be otherwise removed. If the infection had passed beyond the uterus, and the disease was characterised either by grave peritonitis, by septic thrombosis, by affection of the adnexa of one or both sides, or by a uterine abscess, hysterectomy alone would not be an adequate proceeding, since it did not take into account the anatomical changes that had already taken place.

Whenever the disease was pursuing its inexorable course, that fact was a sufficient reason for surgical intervention, with the object of finding and extirpating the foci of suppuration. Future observation alone could inform us how much was to be expected from injections of antistreptococcic serum, and similar methods of treatment, either by themselves or in conjunction with other means of cure. He insisted that too much attention could not be given to a thorough search, as early in the disease as possible, for the foci of suppuration, and thought it probable that, in the future, brilliant results in the treatment of the more serious cases of infection might be obtained by the discovery and removal of any venous trunks that were in a state of suppuration.

TREUB (Amsterdam) thought that in the great majority of cases the methods of treatment actually in use sufficed for the cure of puerperal infection strictly limited to the uterus itself, but that in exceptional instances, in which obstetric measures were inadequate, hysterectomy might be useful. The indications for such interference in each case could only be obtained from an accurate clinical examination, and con-



scientifically considering its advantages and disadvantages in each case. In his opinion, whoever did many hysterectomies for puerperal infection did too many.

TUFFIER (Paris) held it to be proved by pathological anatomy that certain lesions due to puerperal infection were curable by total hysterectomy, though clinical experience did not yet allow us to define what cases were adapted to such intervention. The experience of a skilled obstetrician was needed to decide whether medical treatment could no longer be of use; that of a practised operator to estimate whether the patient could support the operation. The indication depended chiefly upon the seat of the focus of infection, whether from retention of the placenta or gangrene of the uterine walls, or of a myoma. The vaginal way was the better when childbirth was well over, the abdominal when it had only just taken place, as then there would be difficulty of controlling the hæmorrhage in a vaginal operation.

A. W. FREUND said on the same subject: The total extirpation of the uterus for puerperal infection may be taken into consideration if it can be performed in time. (a) In acute septic metritis with retention of the whole or part of the placenta incapable of extraction by the natural way. (b) In metritis with pyæmia arising rapidly after abortion, induced without antiseptic precautions, and generally criminal. In the latter stages of septic puerperal fever of a lymphangitic or pyæmic type, the total extirpation of the uterus is not advisable.

In the discussion, DOLÉRIS, without opposing, was far from favourable to such experimental treatment, and PICHEVIN insisted on the vagueness of the indications adopted by some operators, while FAURE and DURET were more favourable to the proceeding. HOFBAUER reported twelve cases. Practically the four reporters agreed that hysterectomy was not justifiable save in exceptional cases, in which the infection was confined to the uterus and after all ordinary treatment had failed; that the surgeon's decision must depend upon the clinical syndromata of the individual case and that no general rule could be laid down.



## NOTES.

WE have to regret the deaths of the following distinguished obstetricians and gynæcologists:—

MR. FREDERICK THOMAS GRIMSDALE had, some years before his death in Liverpool on August 26, at the age of 79, retired from the active work of his profession. He was long known as one of the leading gynæcologists and obstetricians in this country, and in 1857 published one of the first successful cases of the enucleation of a uterine fibroid.

DR. THOMAS LOTHROP, Honorary Professor of Obstetrics in the University of Buffalo, and for many years Editor of the *Buffalo Medical and Surgical Journal*. He was Physician to the Buffalo Hospital for Women, to which he bequeathed £2,700.

DR. JOHN BYRNE, one of the best known gynæcologists in New York, died October 1, at Montreux, Switzerland, aged 77 years. He was a Fellow of the New York Academy of Medicine and had been President of the Brooklyn Gynæcological, New York Obstetrical and American Gynæcological Societies.

DR. ALBERT WALTON, one of the founders of the Société Pelge de Gynécologie et d'Obstétrique.

DR. LAROYENNE, Associate Professor of Gynæcology in the Faculty of Medicine at Lyons, and a Correspondent of the Academy of Medicine of Paris.

PROFESSOR RUBIO Y GALLI, who recently died at Madrid, was the first surgeon to perform, in 1860, ovariectomy in Spain; he was also the first to perform hysterectomy in that country.

AT Bologna, on July 31, EMANUELE BRUERS, for many years assistant at the local Maternity, and a founder of, and teacher at, the Società Emiliana delle Levatrici.

DR. LOUIS SWITALSKI, *Privat-Docent* of Obstetrics and Gynæcology at the Faculty of Medicine at Cracow.

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A COMMITTEE of obstetricians and gynæcologists, admirers and pupils of the late Professor Hermann Loehlein, has been formed with the object of erecting a bust in his memory at the University of Giessen.

A COMMITTEE has been formed with the object of collecting a public subscription for a permanent memorial of the late illustrious and lamented Professor and Senator, Eduardo Porro; the secretary is DR. CARLO DECIO, Ospedale Maggiore di Milano.

IT is announced that, owing to the continued ill-health of Professor SAENGER, his work as co-Editor of the *Monatschrift fuer Geburtshuelfe und Gynækologie* has been undertaken by Professor VON ROSTHORN, who has for some time past been assisting Professor A. MARTIN, the Editor. The lectures on Obstetrics and Gynæcology in the German University at Prague will, for the same reason, be for the present delivered by Professor KLEINHANS.

THE Bradshaw Lecture, for the first time since its foundation, was this year intrusted to an obstetrician, Dr. CULLINGWORTH, who delivered, on November 4, a masterly exposition of "Intraperitoneal Hæmorrhage incident to Ectopic Gestation."

THE Harveian Lectures are being delivered by Mr. ALBAN DORAN, on "Uterine Fibroids, considered from a Clinical and Surgical Standpoint."

SIR J. HALLIDAY CROOM has been re-elected President of the Royal College of Surgeons, Edinburgh.

PROFESSOR A. V. MACAN has been elected President of the Royal College of Physicians of Ireland.

PROFESSOR VON WINCKEL has been elected Rector of the University of Munich for the current academical year.

DR. ASSICOT has been installed for the usual nine years, as substitute in the chairs of Pathology and Clinical Surgery and Obstetrics, at Rennes.

DR. MASSEN has been appointed Professor in the new Medical Faculty at Odessa.

DR. ZIMMERMANN, Senior Assistant at the Greifswald Frauenclinic (Professor A. Martin's), has been appointed Senior Physician of the gynæcological department of the Hospital at Duisberg.

THE following nominations have been made. As Extraordinary Professors of Obstetrics and Gynæcology :—

AT Cagliari, Dr. GIUSEPPE RESINELLI, of Ferrara. At Prague, *Privat-Docenten* Dr. FRIEDERICH KLEINHANS and Dr. LUDWIG KNAPP. At Cracow, *Privat-Docent* Dr. ALEXANDRE ROSNER. At Linz, Dr. RUDOLF SCHMIDT, formerly Assistant in Schauta's Klinik.

THE following nominations as *Privat-Docenten* of Obstetrics and Gynæcology are announced :—

AT Bologna, Dr. PIER LUIGI GARDINI. At Rome, Dr. F. SAVERIO ROCCHI; Kazan, Dr. V. VLADIMIROV; Naples, Dr. ACHILLE CAPALDI; Vienna, Dr. JOSEPH FABRICIUS.

DR. W. H. WENNING and Dr. J. M. WITHROW have been appointed Professors of Gynæcology at Cincinnati.

AT Baltimore, Dr. GUY L. HUNNER has been appointed Associate Professor, and Dr. BENJAMIN R. SCHENCK Instructor of Gynæcology at the Johns Hopkins Hospital.

THREE women who have graduated at Boston are now members of the teaching staff; Dr. BUCHANAN CAHILL lectures on gynæcology.

DR. ALICE E. ROWE has been elected a member of the staff of the State Hospital for the Insane at Gowanda, N.Y., to serve as a specialist in gynæcology.

DR. HOWARD KELLY has given £2,000 towards an addition to the gynæcological wards of the Johns Hopkins Hospital.

AT Dr. Apostoli's Hospital, 15, Rue Montmartre, Paris, Doctors LAQUERRIÈRE and DELHERM will, during the months of November and December, 1902, and also in June and July, 1903, give twelve practical lectures on Medical

Electricity, of which the fourth and fifth will be gynæcological.

ROME CONGRESS.—Among the names of the Honorary Vice-Presidents at the recent International Congress of Gynæcology and Obstetrics held at Rome, were those of Drs. HORROCKS, MACNAUGHTON-JONES, PUREFOY, and Professors JAPP SINCLAIR and SIMPSON, and from America, of Drs. MANN, ENGELMANN, KELLY, JEWETT, BARTON COOKE HIRST, CULLEN and WAKEFIELD. It was decided to accept an invitation sent by Professor VON OTT, and supported by Professors REIN and STROGANOW, that the next meeting of the Congress should take place (in 1905) at St. Petersburg.

## SUMMARY OF GYNÆCOLOGY, INCLUDING OBSTETRICS, FEBRUARY, 1903.

### SPINAL ANÆSTHESIA.

WEBER (*Amer. Jour. Obst.*, September, 1902), in a communication to the Chicago Gynæcological Society, said he had had an experience of about 150 cases without any mortality. The site of the injection between the fourth and fifth lumbar vertebræ could be found by taking a line connecting the crests of the iliac bones. The spinous process of the fourth lumbar vertebra could be felt near this line, and the needle was inserted about half an inch to one or other side and a little below the tip of this spinous process, and was pushed in a little upwards and inwards. As soon as the subarachnoid space had been penetrated, the cerebro-spinal fluid began to drip from the needle. The barrel of the syringe was then attached and the cocaine injected slowly. The needle should be about three and a half inches long and fairly stout, with a very short bevel. He employed 10 to 15 minims of a solution containing 2 per cent. each of cocaine hydrochlorate, boric acid, and antipyrin. It was put up in one ounce-bottles with glass stoppers, and after forty-eight hours was sterile and would keep. Anæsthesia came on in from three to ten minutes; was complete up to the level of the umbilicus; might extend higher but only in decreasing intensity. It generally lasted for an hour, but sometimes only for half that time. The intensity, duration, and extent of the anæsthesia depended more upon personal idiosyncrasy than upon the dose injected. The anæsthesia was due to the effect of the solution upon the sensory roots of the nerves forming the cauda equina within the envelopes of the spinal cord. As the solution ascended in the cerebro-spinal fluid it became more diluted and caused less effect; and the dilution when it reached the medullary centres was necessarily extreme. In the vast majority of cases there was scarcely any appreciable depression of the cardiac, respiratory, or vaso-motor centres. In an abnormally sensi-

tive person there might be delirium and depression of the vital centres, but this could not be foreseen. Fleeting paræsthesia in the beginning of the anæsthesia was not uncommon. Nausea occurred in about half of all cases within five minutes of the injection, continued five to fifteen minutes, and then gradually abated. Headache affected about one patient in five at the end of the anæsthesia, or later. He considered this form of anæsthesia adapted for all operations on the lower limbs, on the perinæum and on the groin; for plastic work on the vagina and cervix, and for operations upon the bladder. Vaginal hysterectomy and adnexal operations might be done in an emergency under it, but as a rule general anæsthesia was preferable, as also for intraabdominal work. The most extensive field for spinal anæsthesia was in obstetrics, not so much to lessen pain, but to facilitate obstetric manipulation or operation; it had great advantages in lessening the number of indispensable assistants. Kidney disease and bronchitis were no contra-indication to its use.

In the discussion: KOLISCHER said one could never be sure of procuring anæsthesia by this method, which had a much higher rate than chloroform or ether (11 deaths in 300 cases). Cocaine was a very dangerous drug, and personal idiosyncrasy entered too largely into the question. He could not see how any physician could use this method if he did not want to take chances with his patients' lives in order to do and publish something new.

EMIL RIES mentioned that a death from spinal anæsthesia had been reported in America.

BACON thought it wise to investigate the subject, especially in regard to its effects in cases of shock.

PIERCE thought that depressing effects were due to excessive doses of the drug, and reported a remarkable case of abdominal hysterectomy performed under this anæsthetic in a patient whose cardiac condition absolutely contra-indicated any general anæsthesia.

WEBER, in reply, advocated the spinal use of cocaine when chloroform and ether were contra-indicated. Failure to induce anæsthesia was due to faulty technique, by which the cocaine was not injected into the subarachnoid space.

J. F. J.

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THE ESTIMATION OF LEUCOCYTES IN GYNÆCOLOGY AND OBSTETRICS.

WEISS (*Wiener kl. Wchns.*, 1903, No. 2) concludes from personal research that counting leucocytes is a valuable help in the differential diagnosis in diseases of the female genital tract, inasmuch as leucocytosis with a constant value above 16,000 always indicates suppuration. With the prolonged existence of a focus of suppuration the value gradually sinks, but remains notably high for some time. Under some circumstances leucocytosis may ultimately be valueless, but then the subjective condition of the patient and objective results of examination of the genitals will give all necessary information. A negative result as to increase in the leucocytes, when the disease has existed some little time, excludes suppuration.

HAHL, Helsingfors (*Archiv f. Gyn.*, Bd. lxxvii., Heft 3), has investigated the proportion of white blood corpuscles present during pregnancy, labour and childbed in 36 cases, and confirms the conclusions of other observers, finding that there is an increase in the number of white corpuscles during the last days of pregnancy, which begins with the onset of the pains. During childbed the hyperleukocytosis declines gradually.

## ELEPHANTIASIS VULVÆ.

BAMBERG, Berlin (*Archiv f. Gyn.*, Bd. lxxvii., Heft 3), reports two cases, one certainly preceded by syphilis, and the other accompanied with symptoms which were in all probability tertiary; in both excellent results were obtained by iodide of potassium, in one after amputation of the enlarged left labium. He holds that in the great majority of instances chronic ulcerative processes of the vulva with elephantine thickening, are of syphilitic origin.

## THE USE OF THE WAX-TIPPED CATHETER FOR STONE IN THE KIDNEY OR URETER.

HOWARD KELLY (*Amer. Jour. Obst.*, July, 1902) has not found that in the diagnosis of renal and ureteral calculi the introduction of the X-ray has made his wax-tipped catheters entirely unnecessary; they still have the following advantages: (a) the scratch marks afford a valuable confirmation of the findings of the X-ray plates; (b) they serve to distinguish phleboliths about the vault of the vagina, and in the

pelvic veins from ureteral calculi ; (c) they are eminently useful in stout women, where the X-ray findings are unsatisfactory and the repeated use of those rays is dangerous ; as also in (d) cases of uric acid and uratic calculi, where the X-ray shadow is faint, leaving doubt as to the diagnosis ; (e) in extemporised hurried investigations when the X-ray apparatus is not conveniently accessible, and more especially in retrograde catheterisation from the pelvis of the kidney downward in the course of a renal operation, to determine whether there are any calculi lodged in the ureter ; (f) in fibrous or old inflammatory thickenings about the renal pelvis, which give a shadow on the photographic plate exactly like a stone.

J. F. J.

#### THYROID EXTRACT IN DYSMENORRHOEA.

STINSON (*Amer. Jour. Obst.*, July, 1902) writes most favourably of the results of administration of thyroidin in dysmenorrhœa. It increases metabolism, is carried in the plasma to the tissues and organs, and has a specific action upon the vasculo-motor nervous mechanism of the uterus and ovaries. It is "a uterine and ovarian anodyne and sedative, as it arrests the afferent impressions at their formation." A patient treated in April, 1901, had not had any relief from any of the usual remedies, and on account of obesity, was put on a diet and exercise, with extract of thyroid internally. She went through her next period without any pain at all. She has since then been relieved at each period of dysmenorrhœa by the administration of 1 gr. of thyroidin, in capsule, three times a day, given for two days before the onset of menstruation, and increased to 2 grs. three times a day during its continuance. Stinson has used it repeatedly since, and in over 80 per cent. of the cases there has been nearly perfect relief. The treatment is efficient when the uterus and ovaries are in normal position and good condition. Any pathological lesion must be remedied by proper surgical measures.

J. F. J.

#### THE INTRAUTERINE USE OF FORMALIN.

V. FRANQUÉ, Wurzburg (*Muenchener m. Wchns.*, 1903, January 13), in a communication to the first meeting of the recently established Franconian Obstetrical and Gynæcological Society, spoke highly of the intrauterine use of for-



malin as practised by Menge (*ante*, vol. xvii., p. 64), and recently advocated by Smyly (*ante*, p. 117), in this country. He laid particular stress on its action in inducing strong contraction of the uterine musculosa, as Gerstenberg, who used concentrated formalin on Playfair's probes, pointed out, and though still holding the curette to be the most rational treatment for pronounced forms of endometritis, he had succeeded in curing cases by the intrauterine use of formalin in which the curette had given but temporary relief. In two cases he injected concentrated formalin with a Braun's syringe with good effect, but in a third, though only one injection was made and one application by Menge's rod, he was sorry to think that the formalin was a factor in the fatal termination of the case (extensive necrosis, and probably pulmonary embolism). But this was not his only unfortunate experience with concentrated formalin. The obstinate exanthems which are often found on the hands of those who handle the drug freely are well known, and three cases have proved to him that the intrauterine use of the drug may cause violent irritation in the skin of the whole body; the first was a case of nettle rash, the second one of such violent itching that the patient could not help scratching herself sore; the third case was much more serious, an exanthem, with extreme itching, appearing in successive crops; the eyes and some of the joints were also affected. It is against the use of concentrated formalin that he desires to warn the profession, in spite of the 10 cases reported by Gerstenberg, and his own 2 cases of concentrated and repeated intrauterine injection, without any bad effects. The use of the drug as recommended by Menge he would by no means discredit, but has no doubt that by it accidents such as he reports can be avoided, and good results attained without the use of the curette.

#### ATROPHY OF THE UTERINE MUCOSA.

VOLK, Vienna (*Centralb. f. Gyn.*, 1902, No. 51), reports: A young woman of 24 had an abdominal tumour which, as her menses were absent, had been taken for a commencing pregnancy. On laparotomy the uterus was found to be myomatous and was extirpated, and she recovered. Microscopical examination showed that the uterine mucous membrane was completely atrophied, there was not a trace of a gland, and the epithelium was reduced to a few necrotic

cells. Volk attributes the absence of hæmorrhage in spite of the myoma to the condition of the mucosa.

#### A PECULIAR FORM OF SENILE HÆMORRHAGIC HYPOPLASIA OF THE UTERINE MUCOSA.

GOTTSCHALK (*Archiv f. Gyn.*, Bd. lxvi., S. 169) reports two cases, which are interesting examples of post climacteric hæmorrhage not due to new growths. Two widows, aged respectively 56 and 61 years, suffered after many years' menopause from hæmorrhages without antecedent discharge and sacral pain. In each case the general health was good; the uterus was but slightly and uniformly enlarged and somewhat tender, and in the cavity on digital exploration he found near the fundus a smooth and rather soft hemispherical projection, in diameter rather larger than a ten pfennig piece; this he removed with the curette, and afterwards, fearing sarcoma, performed hysterectomy. Microscopical examination of sections perpendicular to the base of the new growth disclosed three distinct layers above the musciosa; the superficial layer of necrotic tissue exhibited a network of round meshes of various size, in which were strikingly dense collections of multinuclear leucocytes, arranged in round nests like tubercles, but more defined, as a special limiting membrane could be detected between adjoining foci; some of these foci showed a central lumen almost perfectly circular and well defined, though only lined by leucocytes. In other parts the leucocytes were more sparsely disseminated. He recognised the lumina as remains of former glands which had lost their epithelium, the other parts as interglandular tissue. The middle layer was thickly but irregularly interspersed with leucocytes, the majority of which had but one nucleus. In the third and deeper layer the leucocytes with one nucleus were still more numerous, but there were few multinuclear cells; there were series of small round cells whose nuclei filled their cavities; there were, moreover, elongated bipolar round cells, not so well coloured and evidently badly nourished. The structure of this third layer was deceptively like round-celled sarcoma. The only anomaly presented by the uterus was the thickness of the mucosa, and the degeneration of the middle wall of its vessels which in many places had led to sanguine extravasations. The glands were infiltrated with quantities of leucocytes arranged more or less con-

centrically, the glandular epithelium had disappeared and the wall proper alone was left, the central lumen could still be seen where the leucocytes were less numerous. One may therefore suppose that the circular foci of the small tumour of the mucosa were merely glands stuffed with leucocytes, and that degeneration of the vessels had entailed necrosis of the cellular tissue, and an enormous diapedesis of embryonal cells into the meshes of the connective tissue and interior of the glands. Sarcoma of the mucosa seems to be excluded by uniformity in the type and structure of the leucocytes, and by the nodular formations which are not usually met with in that disease.

#### ATMOKAUSIS AND ZESTOKAUSIS IN RELATION TO CURETTAGE.

PINCUS, Dantzic (*Monats. f. Geb. u. Gyn.*, Bd. xvi., S. 745), does not consider atmokaussis either a substitute or a complement for curettage. Atmokaussis or zestokaussis of short duration properly applied, is undoubtedly less severe than an efficient curettage. The success of atmokaussis depends on the proper selection of the cases as well as upon proper handling of the apparatus. The curette in itself is not curative, and is employed merely as a preliminary to subsequent treatment, while atmokaussis and zestokaussis are each typical methods of cure. The combination of abrasion of the mucosa with atmokaussis is not indicated during childbearing age, save in exceptional cases, but after the menopause is so as a general rule. It is always desirable and often necessary to carry out the two proceedings at different times. During the age of childbearing the action of steam upon the mucosa should be limited to a short application at a high temperature (115° C.), but after the menopause, and some little time after the use of the curette, the steam may properly be applied at a lower temperature and for a longer time. Hæmorrhages following the separation of the cicatrix are more common when the atmokaussis immediately follows the abrasion. When the curette proves inefficient atmokaussis is indicated; repeated and aimless curettage is to be avoided, it may interfere with the clinical action of atmokaussis. In the rare cases in which, owing to the presence of polypoid structures in the fundus or tubal angles of the cæcum, atmokaussis is not beneficial, hysterectomy may be avoided by employing zestokaussis after carefully clearing out the angles of the cavity with the curette.

#### VENTROFIXATION.

KREUTZMANN, S. Francisco (*Centralb f. Gyn.*, 1902, No. 50), considers that ventrofixation is not a justifiable operation, the indications for it are merely relative, the position into which it brings the womb is not physiological, its later results may prove dangerous to the health, and even to the life of the patient, and it is an operation that may be dispensed with. He recommends in its place, for movable retroflexion, vaginal fixation or Alexander's operation, and that adherent cases should be converted into movable ones, and eventually supported by shortening the round ligaments.

#### SUPRAVAGINAL AMPUTATION OF THE UTERUS.

HEINRICIUS, Helsingfors (*Archiv f. Gyn.*, Bd. lxxvii., Heft. 2), has operated on 118 cases since 1894, in Chrobak's way, by forming an anterior and posterior flap of peritoneum to cover the stump. Only two cases died. He invariably sears out the cervical canal with the thermal cautery.

#### THE RESISTANCE OF ABDOMINAL CICATRICES AFTER LAPAROTOMY.

PICHLER (*Beitraege z. kl. Chir.*, Bd. xxxiii., 1) reviews the later condition of the abdominal cicatrix in 124 subjects of laparotomy in Mikulicz Klinik at Breslau; in some the abdomen had been closed at once, others had been treated by drainage or tamponnement. In 43 cases of median laparotomy with immediate closure of the wound by suture in layers, which Mikulicz has practised since 1895, there were 4 of abdominal hernia. In 7 earlier cases of through and through suture, there were also 4 cases of hernia. As regards ilio-cæcal incisions the results were more favourable, as with the exception of one case in which owing to deep suppuration the wound could not be plugged till the fourth day, all the cicatrices remained firm. Buried sutures were expelled, generally from six to eight months post-operation, in 24 out of 62 cases, the material of 22 being silk, of 2 silkworm gut. Mikulicz does not now use silk for buried sutures. The influence of tamponnement on the cicatrix depends on whether it be done as a prophylactic measure or otherwise, *e.g.*, because suppuration is present, or to induce the cicatrization of a cystic cavity; in the former

case hernia is much less frequent (30 per cent.) than in the latter (65 per cent.); in fact, it seems that the occurrence of hernia depends more upon the condition of the abdominal wall at the time of the operation than upon the use of the tampon; existing suppuration is the chief cause of feeble cicatrisation. Flaccidity of the abdominal walls in multiparæ does not predispose to hernia, but pregnancy after the operation tends to enfeeble the cicatrix.

Owing to the unusual length of the Proceedings, it has been necessary to transfer the following important address of our distinguished Honorary Fellow Professor Hegar, to this position.

#### THE OPERATIVE TREATMENT OF FIBROMYOMATA OF THE UTERUS.

HEGAR, Freiburg (*Muenchener m. Wchns.*, 1902, No. 47), addressing the Medical Congress of the Upper Rhine last July, said: "The first operation for new growths of the uterus were for fibrous polypi, and it is worth remembering that their extirpation was considered a dangerous undertaking; hæmorrhage was especially dreaded and, in the hope of preventing it, measures such as ligature of the pedicle, the stump of which was left to undergo necrosis, were adopted and were a source of real danger. The so-called 'Allongement opératoire' was an ingenious proceeding which, when cutting instruments were used, permitted the extraction of a very voluminous mass through a relatively narrow opening; it consisted in making either a number of simple incisions at right angles to the long axis of the fibroma, or cuts round it in a spiral direction, so that the tumour could be easily pulled out into a longer and narrower shape. This manœuvre is still employed by some surgeons. Enucleation followed, and by it attacks were made on fibromyomata, which grew in one of the lips of the cervix or extended within the os, and even upon submucous tumours of the uterine cavity which had been forced down by contractions so as to be visible or even project through the more or less dilated mouth of the womb.

The successful practice of ovariectomy led the way to the removal of large tumours by abdominal section, in the first instances without pre-arranged plan. The abdomen was in fact opened under the idea that the tumour was an ovarian

cyst, and when the mistake was discovered the operator was unwilling to leave the operation incomplete. Some time elapsed before any premeditated operation of the kind was performed upon a well-founded diagnosis. Péan, however, described a definite way of removing large tumours by the abdominal route. He made a comparatively short incision, passed a loop of wire through the tumour and round larger or smaller portions of it, which he amputated by tightening the wire, until finally he got the wire round the neck of the womb, amputated what was left, and allowed the stump to slough away by necrosis. This *morcellement* took much time and was not without danger, and the mortification of the stump was often accompanied by unpleasant results.

Operating in this way, I was, in 1876, the first in Germany to extirpate large fibromata by laparotomy, at all events the first to perform premeditated operations of the kind, but I soon abandoned *morcellement* and made an incision large enough to allow the tumour to be drawn out of the abdomen. I continued, however, to use the wire loop by which one could not merely ligature but even safely divide the plexus of large vessels at the lateral edges of the uterus. I still marvel that the two women I first operated upon did not die, but made good recoveries. I soon improved upon this method by substituting a rubber band—as recommended by Kleefeld—for the wire, stitching the parietal serosa over the stump and converting the latter, as far as possible, into a dry cicatrix by the application of chloride of zinc solution and Paquelin's cautery.

As regards mortality the results of this procedure are very favourable. There is very little danger of hæmorrhage or infection. No foreign body or tissue in process of necrosis is left in the abdominal cavity, and the operation can be quickly performed. Its disadvantages lie in the prolonged after-treatment and in the danger of subsequent abdominal hernia.

Somewhat later Schroeder proposed an intraperitoneal method. After establishing a preliminary control of the circulation by tying the spermatic arteries and putting a ligature round the neck of the womb, he removed the tumour and the whole or greater part of the corpus uteri by a wedge-shaped incision, and united the cut surfaces by a series of sutures in layers so as to prevent bleeding when the rubber band was cast loose; but this method did not prevent hæmorrhage or sepsis, and gave very bad results.



Chrobak, Hofmeier, and Zweifel devised modifications of this method by which the stump was excluded from the peritoneal cavity; these were practically extraperitoneal operations but are more satisfactorily termed retroperitoneal methods. The essential point in them is the use of flaps of the peritoneal investment of the lower section of the uterus to cover up the transversely divided cervix. Hæmorrhage is prevented by tying the spermatic and by ligaturing the uterine arteries, and perhaps the cervix, in separate portions. These modifications gave good results, but nevertheless were sometimes followed by necrosis of the stump, and by infection from the vaginal or from the cervical mucosa, even though the canal had been seared with Paquelin's cautery; moreover, prolonged suppuration was not uncommon, owing to the number of ligatures left *in situ*.

While these operations were being developed two other methods of treatment were brought forward. I myself advocated and performed castration for fibromyomata which were not submucous and did not reach much higher than the navel; as regards mortality the results were excellent, the hæmorrhage was nearly always arrested and in the great majority of cases the tumours diminished to a very considerable extent and often did so very quickly. The rapidity of the proceeding and its very slight danger were additional advantages. It was but rarely that the bleeding was not stopped or that the growth continued so that one was compelled to resort to other measures, and in other respects nothing was lost. In one case, after operation for a submucous fibroid, spontaneous enucleation commenced and had to be completed artificially; but such exceptions could not outweigh the great advantages of castration, and could hardly be taken into account in comparison with the dangers and disadvantages of the more serious alternative interventions. For fibromata not reaching much above the navel, but for which extraction through the vagina is impossible or, on account of the time necessary for it, inadvisable, castration is particularly suitable. Total extirpation and supravaginal amputation are more dangerous operations, and may moreover be contraindicated by the debility of the patient. The objection that it is improper to remove a healthy organ instead of attacking the one diseased does not meet the question, and is, even theoretically, unsound. The ovaries are not in a normal condition, and it is certainly better, instead of extir-

pating the uterus, to remedy its pathological condition and preserve it, at all events so far that it can fulfil its function as part of the floor of the pelvis.

Abdominal enucleation, the other method alluded to, we practically owe to Martin ; not indeed as regards subserous growths, either pedicled or broad based, such as had been previously removed in this way, nor as regards those multiple nodules of the size of an egg or an apple, which, originating in the deeper layers of the muscularis, project to a certain extent above the external surface. Tumours of this kind cause no distressing symptoms, and such symptoms, if present, are to be referred to other tumours, situated more deeply or elsewhere, and indicating other modes of intervention. The circumstances may be compared with small cystic degeneration of the ovaries ; if the disease be partial and only a few follicles distended, though perhaps considerably so, Paquelin's cautery, lancing or resection, are superfluous, and in the patient's interest unnecessary ; but a general progressive pathological process, attended by grave distress, cannot be relieved by such measures.

The enucleation of larger intramural and, as Martin proposes, submucous myomata from the abdominal side, has not yet been performed often enough for us to form a decided opinion as to its mortality, though this seems to be greater than that of other abdominal operations, and certainly is so when the uterine cavity has to be opened in order to shell out the tumour. Moreover, one can never be sure that in addition to one or two apparently solitary growths some smaller tumours or nodules may not be present and increase in size after the operation, though as a rule one may consider this improbable. Finally, one can never be certain that the enucleation will absolutely arrest the hæmorrhage which indicated the operation. The method has been praised as one that not merely preserves the uterus but leaves its function unimpaired, and especially so as regards pregnancy and its normal course, but such a result is certainly so rare as not to be any basis for choice. Conception, even if it should occur, is not a subject for congratulation. A uterus with extensive cicatrices, and in many cases adhesions also, is not a lodging well adapted for the satisfactory development of an ovum. No stock-breeder would choose a female with a womb so marred, with any hope of having strong and healthy progeny ; a comparison perhaps which may be somewhat "shocking" but is



perfectly appropriate. Martin's method has not had many adherents but has been recently adopted by Olshausen.

The more recent methods of operating for fibromata include abdominal panhysterectomy, which has been successfully practised by Bumm and Doederlein, and enucleation, with or without total extirpation, after opening the anterior and posterior vaginal vaults. The idea of removing the whole uterus arose from the unpleasant consequences connected with the care and ultimate fate of the stump in the retroperitoneal method. The operation has its disadvantages, especially the long time it—often quite unavoidably—takes to perform. Under favourable circumstances, however, especially for single tumours which, though perhaps very large, have grown only in the direction of the peritoneal cavity, it does not take long, but such cases are not often met with.

Abdominal total extirpation is indicated in complicated cases, such as those in which the tumour lies partly in the smaller pelvis, develops and unfolds the peritoneal layers of the lower portions of the broad ligaments, extends as far as the lateral, or even the posterior wall of the pelvis, approaches the hypogastric vessels or the ureters, elevates the back part of the broad ligament, or separates the mesentery, so that the sigmoid flexure on the left and a loop of small intestine on the right lie across the tumour. The branches of the uterine arteries are often thrust asunder and some pushed forwards and others backwards. Occasionally, to obtain a better view, one is obliged to take away individual nodules or sections of the growth. If changes have taken place in the tumour such as effusions of blood, necrosis, or cystic degeneration, there are often also very extensive adhesions rich in blood supply, especially to the omentum. Finally, pathological changes in the adnexa are by no means rare. Under such circumstances the operation cannot be done quickly, but is nevertheless especially indicated and has many advantages over any other method.

Protracted exposure of the abdominal cavity may, however, be in many instances avoided by commencing the operation by the vaginal route below, cutting the uterus free from the vagina, opening the peritoneal cavity before and behind, and ligaturing the uterine vessels. When this has been done and the abdomen opened, the extirpation may be completed from above much more rapidly than

otherwise would have been possible. Unfortunately this method of proceeding is often impossible owing to some unusual position of the vaginal portion, the impossibility of drawing down the cervix, the obstruction of a nodule extending down into the neck, or the separation of the branches of the uterine vessels.

The persistence of an extensive tract of connective tissue between the vagina and the peritoneum is another unfavourable condition. If the peritoneal cavity be closed high up, about the level of the pelvic inlet, a portion of the pelvic cavity is left open to the vagina. Suitable drainage by means of iodoform gauze has proved the best means of dealing with this condition.

It will be seen that one cannot expect as good results from an abdominal total extirpation as from other methods, but this is because it is just the most difficult and complicated cases that have to be reserved for this method of treatment.

Vaginal enucleation and extirpation have been much more widely practised since Duehrssen perfected anterior colpotomy. Whether the attack should be made from before or behind the cervix depends upon the direction from which the tumour is more accessible. Enucleation alone is only indicated in small, presumably solitary intramural or subperitoneal fibromata projecting outwards from the surface of the lower uterine segment, which can be taken away without serious injury to the uterus itself. But this vaginal method may also be applied to submucous growths. Occasionally it is not even necessary to open the anterior utero-vesical pouch; one may divide the uterus as far as the attachment of the peritoneum, or even separate the serosa from the muscular tissue somewhat further up, and then be able to shell out the tumour. Otherwise one may divide and afterwards sew up the wound in the peritoneum after the enucleation; the wound in the uterus is closed if complete drainage of it and the uterine cavity is not thought desirable, otherwise it is left open.

It is generally admitted that the tumour, if it is to be removed through the vagina, should not extend beyond the navel: but we have removed more voluminous growths which reached above the umbilicus. Size alone is not decisive, and sometimes it is easier to push part of a large tumour down into the pelvic inlet than part of another and much smaller one. The connection of fibromata with the

uterine muscular tissue also is very variable ; sometimes, especially in young persons, extremely intimate, so that it cannot be divided without the knife or scissors ; sometimes so loose that the finger alone is sufficient to do so easily, moreover the texture of the tumours themselves varies ; many can be easily drawn out lengthwise, which is made easier still by incisions in their surface ; others yield very little to traction, and one has to bore into them and cut out conical or cylindrical pieces ; the consistence of the remainder may thus be reduced and they may yield to traction. Conservation of the uterus is not to be recommended in case of ascertained solitary large tumours. The organ suffers too much from the operation. The preliminary ligature of the uterine vessels, before dealing with the tumour, does not forbid conservative operation, as the danger of hæmorrhage is thereby greatly diminished ; moreover one has the additional advantage that if the completion of the operation requires the opening of the abdomen, as in unfavourable circumstances sometimes happens, this second part of the operation can be performed quickly and the abdominal cavity need not remain open for long.

Of all operations for fibromata vaginal extirpation gives the most favourable results, and it has the further advantage of leaving no danger of hernia.

#### HETEROTOPIA IN THE HISTOLOGICAL STRUCTURE OF A FIBROUS UTERINE POLYPUS.

POLLAK (*Wiener kl. Wchns.*, 1903, No. 3) found that hæmorrhage in a woman aged 28, who had been curetted some years previously, was due to a fibrous polypus extruded into the vagina. Examination revealed the presence in the tumour of typical fat cells which formed several lobes of various size with large vessels. To explain the presence of such fat cells in a tumour of the kind, Pollak supposes that when the uterus was curetted its wall must have been perforated and some part of the omentum been drawn through, and, becoming adherent, have formed the nucleus of the tumour.

#### SEQUESTERED ABDOMINAL TUMOURS.

PRUESMANN (*Hegar's Beitræge z. Geb. u. Gyn.*, Bd. vi., Heft 3) reports upon two cases of solid abdominal tumours of unknown origin, which are of interest, as solid tumours unconnected with the womb, with adhesions to other organs

or lying free in the peritoneal cavity, are uncommon. The first was a fibrosarcoma in a sterile woman aged 52, forming a tumour the size of a child's head, which lay above the brim of the pelvis and was fixed by various adhesions to the neighbouring organs; its point of departure could not be made out. The other was a fibromatous growth as large as a fist in the small pelvis of a 20-year-old nullipara.

PATON (*Brit. Med. Jour.*, 1903, i., p. 131) describes a fibroid, 5 lbs. in weight, detached from the uterus and adherent to the small intestine and engorged mesentery, and quotes similar cases reported by others.

ROGER WILLIAMS (*ibid.*, p. 289) points out that sequestered uterine myomata are not particularly rare but are generally of moderate size; they are very prone to inflammation leading to gangrene, or acute peritonitis, or even to perforation of the bladder, rectum or abdominal wall.

#### RESULTS OF ABDOMINAL PANHYSTERECTOMY FOR UTERINE CANCER.

JACOBS (*Bull. Soc. Belge. Gyn. Obst.*, T. xiii., 1902-3, No. 2) gives the results of 81 abdominal sections for cancer of the uterus. Six patients (7·4 per cent.) died directly from the operation; one other could not be communicated with, and 4 cases are excluded as being too recent for classification. In one instance the operation had no appreciable, nor even any palliative, influence on the disease. Of the remaining 69 cases, 41 died from recurrence, the operation in 15 of these having, owing to the extent of the disease, been incomplete. Death occurred in 16 within one, in 19 others within two years, and in 6 more during the third year. In the other 28 who survive—10 more than two and 3 more than three years—there has been no recurrence. Out of the 81 cases, only 8 presented evidence of earlier local affections and operations on the cervix uteri. In 67 there was no family history of cancer; in 12 the mother had died from that disease; and in one the father, and also a brother, had died from cancer of the liver; in another case a brother and a sister had been victims of cancer. Only one patient was less than 30 years old; only 8 less than 35; 14 more were under 40; 16 under 45; 15 under 50; 15 under 55; 6 under 60; 4 under 70; 1 under 75. Nulliparæ are attacked, but with less relative frequency than pluriparæ. Recurrence of the disease after operation generally occurs in the pelvis

and affects the intestines, especially the rectum and sigmoid flexure ; in many of the author's cases death ensued before there was any erosion in the vaginal vault ; in a few the disease became generalised all over the abdomen, or the liver suffered, probably by metastasis ; in one only cancer reappeared in the thorax and invaded the lymphatics of the neck.

P. Z. H.

#### A NEEDED CHANGE IN TREATMENT OF UTERINE AND MAMMARY CANCER.

LAPTHORN SMITH (*Amer. Jour. Obst.*, August, 1902) is convinced that cancer is a contagious disease and not hereditary. He thinks that every hopeless case of cancer should be isolated, or at the least that precautions should be taken to limit the spread of the disease by the wearing and subsequent burning of jute pads, by frequent douching with formalin, and by the disinfection of the hands of patient and attendants. If the uterus were removed in the early stages of the cancer, under strict precautions against infecting the remaining raw surfaces, there would be no recurrence. Many so-called recurrences are the same disease continuing on its fatal course, many are due to inoculation of the raw surfaces by the cancer cells or juices. If a cancerous uterus be too large to be removed by the vagina, the combined vagino-abdominal method should be employed. Although clamps may compress nerves as well as blood-vessels, their advantages in greater speed and security from hæmorrhage are sufficient to give them the preference over ligatures. In his opinion the great cause of uterine cancer is laceration of the cervix, and the preventive treatment of cancer should begin at a woman's first confinement. We should never interfere in the first stage of labour unless it be to check its rapidity by the judicious use of opium, so that the pains will be less frequent and less violent. If there is a tear of the cervix it should be repaired without fail. If hæmorrhage comes on after the menopause it is invariably cancer. In cancer of the breast the same principles hold—it is only the really early cases which can be relied upon to give good results.

J. F. J.

#### TWO CASES OF DECIDUOMA MALIGNUM.

NOBLE (*Amer. Jour. Obst.*, September, 1902) describes two cases of deciduoma malignum. The first, operated

upon in 1893, was thought to be a sarcoma, and the real nature of the growth was not recognised until just before the second case was operated upon in November, 1900. The first patient was aged 30; constant hæmorrhage began twenty months after her second confinement, and lasted for ten months before she applied for treatment. After an exploratory curetting, vaginal hysterectomy was performed at the end of June, 1893, and she died the following December from secondary growths in various parts. The second patient, aged 24, had a miscarriage at the fourth month, in November, 1899, and another at the sixth week, on August 15, 1900. Menstruation had been previously irregular, the flow lasting seven days, but since the miscarriage the flow had been constant. When admitted on November 14, 1900, a softish tumour was found connected with the uterus and filling the pelvis. At the operation this tumour proved to be growing from the fundus of the uterus; it was soft and obviously malignant, and had broken through the peritoneal covering at one point where it had invaded the bladder wall. A supra-vaginal hysterectomy was performed, but a part of the growth on the bladder wall had to be left behind. The woman made a good recovery; sixteen months later she was seen in perfect health, and no trace of malignant disease could be discovered. The mass which had been felt on the bladder at the preceding examination had disappeared. The pathological report shows no disease of the ovaries or tubes or in the cervix. The tumour resembled a mass of coagulated blood, showing narrow indistinct bands, apparently of connective tissue. "Sections taken from the periphery of the growth exhibit an organised structure for a few millimetres only from the periphery, the tissue within this line being almost entirely necrotic or consisting of fibrin and infiltrated blood cells. At the periphery irregular masses of large cells are found infiltrating the muscular wall of the uterus, and apparently lying in distended uterine sinuses. These cells contain one or more oval, rounded, irregular, or more frequently fusiform, nuclei. Adjoining these cells are much smaller cells with small, regular, rounded nuclei. Invasion by small lymphoid cells seems to precede that of the larger cells. The diagnosis is syncytioma malignum of the corpus uteri."

J. F. J.



PRIMARY CHORIO-EPITHELIOMA NOT IN THE AREA OF  
OVULAR ATTACHMENT.

ZAGORJANSKI (*Archiv f. Gyn.*, Bd. lxxvii., Heft 2) reports from Landau's Klinik, a woman, aged 20, aborted in the third month, and soon afterwards suffered from vaginal hæmorrhage, rigors and hæmoptysis. Two superficial ulcerated nodules were found at the introitus vaginæ, but the internal genitals proved free from disease (palpation, curettage). When the nodules were extirpated (and their former seat curetted), they proved to be chorio-epitheliomatous growths, in parts originating from the surface of ectopic chorionic villi. Seven months later the woman again aborted, and a year and a half after the operation proved to be in the third month of pregnancy. Zagorjanski pointed out the impossibility of determining the malignity of the disease from the microscopical examination as definitely as one perhaps might do in carcinoma. On this point only the clinical course was decisive, and that, he thought, varied with the resisting powers of the patient. He had found 16 analogous cases recorded.

HÆMANGIOENDOTHELIOMA INTRAVASCULARE UTERI.

HANSEN, Copenhagen (*Virchow's Archiv*, Bd. clxxi., Heft 1), reports upon a tumour removed with a part of the collum from a woman aged 52, who, except for the trouble caused by the increasing size of the tumour during the previous two years, had not had any other symptoms to complain of. The mass removed weighed altogether over 15 lbs. (6,700 grms.). Microscopical examination proved that the tumour originated from the endothelium of the vessels of the uterine wall. The new growth was not at all well defined from the neighbouring tissue, and in structure closely resembled sarcoma, but nevertheless had not given rise to any metastases. This is the first uterine tumour to be described as hæmangioendothelioma intravasculare.

AN ADENO-MYOMA WITH PAPILLARY OUTGROWTHS.

WIENER, Kohlgrub-Muenchen (*Monats. f. Geb. u. Gyn.*, Bd. xvi., S. 131), describes a tumour larger than a man's head, composed of several masses partially covered with projecting excrescences, some as large as a hazel nut, taken from a woman aged 53. The structure of the projecting parts resembled papillary ovarian carcinoma. The tumour

was connected with the right edge of the uterus by a pedicle as thick as the thumb. The tissue of the tumour and of the excrescences was fibromyomatous. Beneath the surface of the growth there were some nodules and glands resembling uterine glands; there was no cell-producing tissue. He classes the tumour as analogous to the voluminous para-oophoral adenoma-myoma described by Pick, and as belonging to Recklinghausen's adeno-myomata. The article is illustrated by microscopic and other drawings of the tumour.

#### ENDOTHELIOMA OVARIUM.

LANGE, Koenigsberg (*Centralb. f. Gyn.*, 1903, No. 3), reports the following case: A nullipara, aged 41, underwent laparotomy for cyst of the left ovary, and made a good recovery. Anatomical examination proved that in addition to a simple serous cyst there was an endothelioma lymphaticum of the same ovary, not of such long standing as the cyst. The patient fell ill five months after the operation with pleurisy and ascites, which proved fatal in a few weeks. The autopsy revealed an endothelioma of the right ovary with diffuse peritoneal metastases. This is the forty-first recorded case of ovarian endothelioma, and its association with cystic disease is noteworthy.

#### OVARIAN SARCOMA DEVELOPING FROM THE THECA EXTERNA OF THE GRAAFIAN FOLLICLE.

RUSSELL and SCHENCK (*Amer. Jour. Obst.*, August, 1902) give a pathological report on a sarcoma of the ovary removed by Kelly from a woman aged 49. For three and a half years before operation, and beginning three years after the menopause, there had been irregular uterine hæmorrhages. The tumour had a twisted pedicle and rose nearly as high as the umbilicus. The specimen consisted for the most part of small cysts, separated by rather firm trabeculae with some larger-sized cavities formed by the breaking down of the septa; some of the cavities contained small papillary ingrowths. The stroma was made up of connective tissue, with spindle-shaped cells with long nuclei. The alveoli were filled by round cells with large vesicular nuclei, some which stained homogeneously, while in others the chromatin network could be made out. The cells seemed to have little tendency to invade the stroma. The round sarcoma cells bore a characteristic relation to the Graafian follicles.



On examining a small Graafian follicle it was found to be lined "by an almost perfect layer of large cells with large vesicular nuclei, the cells being characteristic of the granular layer. The outer layer of cells, those forming the theca externa, had more or less completely disappeared, and many of them were indistinguishable from the sarcoma cells which everywhere surround the follicle." From the number of the follicles showing this condition it is very likely that the theca of the Graafian follicle was the starting-point of the tumour.

J. F. J.

#### GROWTH RESEMBLING AN HYDATID MOLE IN AN OVARIAN DERMOID CYST.

PICK (*Berliner kl. Wchns.*, 1902, No. 51) relates a case which proves that teratomata of the ovary, as admittedly those of the testicle, may contain derivatives of the membranes of the embryo. The patient, who had suffered from severe hæmorrhage, was on laparotomy found to have a cystic ovarian teratoma, and at the seat of a chorio-epitheliomatous new growth, abnormal tissue of benign character resembling that of an hydatid mole, the histological structure of which is described with an illustration. This hydatiform growth proved to be part of the structure of the dermoid tumour. Pick concludes that the presence of components or descendants of the embryonal membranes in teratomata is not evidence of the derivation of those tumours from fertilised polar globules, nor the absence of such any proof of their origin from wandering blastomeres.

#### PRIMARY CARCINOMA OF THE TUBE.

GRAEFE, Halle (*Centralb. f. Gyn.*, 1902, No. 51), has found 52 recorded instances of primary carcinoma of the tube. In one he himself now reports the patient, a woman aged 51, had an ovarian cyst on the right side as well as carcinoma of the left tube; both tumours were removed eight months ago, and she remains well up to the present.

#### GONOCOCCI IN THE TISSUE OF THE TUBES.

KRAUSE, Vienna (*Monats. f. Geb. u. Gyn.*, Bd. xvi., S. 192), in investigating eight gonorrhœal tubes removed by operation, found in one case gonococci in all the layers of the tube wall. The tubes were swollen to the size of a little finger and discharging pus containing the bacilli from their

open fimbriated extremities, and in sections stained with methylene blue of the ampullary and pre-ampullary part of the right tube, gonococci could be demonstrated on and in the epithelium, and in the stroma of the mucosa, and in the muscular layer in the peripheral parts and in the subserous tissue of the tubal wall. The observation supports the view of Wertheim that the inflammatory changes in the tube and in the peritoneum are due to some vital influence of the gonococci at the part affected. Demonstration of the gonococci in the tissues is rare, because as a rule the material examined is unsuitable.

#### GENITAL TUBERCULOSIS.

AHLEFELDER (*Monats. f. Geb. u. Gyn.*, Bd. xvi., S. 296) supplements Polano's report upon genital tuberculosis in the Greifswald Clinic by details of 15 additional cases. The disease according to these observations mainly affects women of childbearing age, who have either been absolutely sterile or become so when attacked, and this owing to the tubes being generally the seat of tubercular lesions. The majority of the subjects were sound strong women without any apparent predisposition or hereditary tendency, and in only one of the 15 did any family history (that of a sister) point to the disease. The existence of tubercle in other parts of the body is an important factor. All the cases were treated by operation, 5 by laparotomy, 6 by colpotomy, with or without resection of the tube, 4 by total extirpation; 3 died, 2 from the bad effect of the operation on pulmonary disease, one from meningitis. Operative interference is contra-indicated by advanced tubercular disease of the lungs or other organs.

#### TUBERCULOSIS OF THE FEMALE GENITALS IN CHILDHOOD.

BRUENING, Leipsic (*Monats. f. Geb. u. Gyn.*, Bd. xvi., S. 144), describes a fatal case of tuberculous peritonitis in a girl aged 4, in whom the genital organs were also affected with the disease. The peritonitis was secondary to the perforation of a tubercular intestinal ulcer, and the tubes and uterus became affected by the descending course of the disease. The tubes were thickened and on section showed caseation, as also did the whole fundal portion of the small uterus. Typical tubercle was found in the remaining tissue of the tubes, and in the ovarian tissue

also, while in the uterus there were bacilli as well as tubercle. The cervix and vagina were not affected; a purulent discharge from the vagina had not been investigated.

#### MILIARY TUBERCULOSIS AFTER ABORTION.

WESTENHOEFFER (*Soc. Méd. Int.*, Paris, Jan. 12, 1903) reported the following case: A young woman, four weeks after aborting, had high fever (39°-40° C.) at first attributed to septicæmia (more probably pyæmia), and died four days after her admission to hospital. The autopsy revealed miliary tuberculosis of the serous membranes and all the viscera; the endometrium was extensively affected, the walls of the veins being infiltrated with caseated tubercles; the disease seemed to have arisen in an old caseous focus in the left tube; there was a similar but small focus in the apex of the left lung. He had not seen the foetus, and there were no remnants of placenta in the uterus; he thought the miliary affection had developed after the abortion. Steinthal said the point was important, as when miliary tuberculosis occurred during pregnancy the question of terminating the latter arose.

#### RESULTS OF CÆLIOTOMY IN VARIOUS FORMS OF TUBERCULOUS PERITONITIS.

LAWERS (*Bull. Soc. Belge. Gyn. Obst.*, T. xiii., 1902-3, No. 3) reports 32 cases of cæliotomy for tuberculous peritonitis, 2 fatal within four days of the operation. Of the remaining 30, 12 died, 11 within a year, from progressive exhaustion or pulmonary tuberculosis, one other patient from the latter disease at the end of two years. The 18 survivors are apparently in good health, 8 of them from thirteen to three years, and 10 less than three years after the operation. With the exception of one case, dying from pulmonary disease in a few months, all the patients with generalised ascites were among the cured, but only 4 out of 13 with the dry (ulcerative and fibrous) form of the disease, and the author draws conclusions as to the desirability of the operation accordingly.

P. Z. H.

#### ECTOPIC GESTATION.

ROSS (*Amer. Jour. Obst.*, July, 1902) records of ectopic gestation operated upon, 3 before, and

rupture ; and 1 case after full time (ruptured cornual pregnancy). Suppuration had occurred in five instances ; double ectopic gestation in one, and ectopic gestation had occurred twice in three patients. One case was an interstitial pregnancy in its very earliest stage. Ross has never met with primary ovarian or abdominal pregnancy, nor with a case of rupture into the broad ligament. He does not deny that the latter may occur, but thinks that very few come to the operating table. If a hæmatocele suppurates and discharges *per rectum*, it may still have been intraperitoneal, for tubal and ovarian abscesses rupture into the rectum, and take no account of the broad ligament. There is no evidence that a downward rupture of an interstitial pregnancy has ever taken place without coincident rupture into the abdomen. There was one case of coincident intra- and extrauterine pregnancy, the latter being removed the day after an ordinary delivery, but death unfortunately resulted from hæmorrhage. As regards ætiology, Ross has almost always been able to elicit the history of previous attacks of inflammation. The symptoms and differential diagnosis are fully dealt with. The author has not found the presence of the decidua of value in diagnosis, as it is generally extruded too late, and only after serious symptoms have set in. When it is extruded early, the case closely simulates, and may be mistaken for, one of miscarriage. Intraperitoneal hæmorrhage from some other source cannot be definitely diagnosed from a ruptured ectopic gestation. An ovarian tumour, pelvic in situation, that has been accompanied by uterine hæmorrhage, and which has become fixed and inflamed as a consequence of a twist of its pedicle, will be difficult to diagnose from a mass left in the pelvis from ruptured ectopic gestation. It is impossible to diagnose rupture of a tubal pregnancy from rupture of a cornual pregnancy, or from rupture of a pregnancy in an ill-developed horn. Operation, as early as possible, is the only proper treatment, and when the pregnancy is advanced should be by abdominal and not by vaginal section. A subperitoneal pregnancy should also always be operated on by abdominal section. It is better not to operate before the child is likely to be viable, provided the delay does not jeopardise the mother. After the death of the foetus, operation should be done without delay, and is then safer than when the child is alive. Of the 45 cases, 8 died. The first death was due to a previously septic condition of the

patient. The second to collapse from the amount of blood lost before operation. The third from slipping of the ligature. In the next the cause is not given. In the fifth the cause was hæmorrhage from the placental site of a sub-peritoneal pregnancy of five and a half months. Again in the sixth the cause of death is not given in the table. In the next the death was due to hæmorrhage, and also in the last case. The table of cases is full of interest.

J. F. J.

#### ADVANCED ECTOPIC GESTATION, WITH LIVING CHILD; CÆLIOTOMY.

SITTNER, Brandenburg (*Centralb. f. Gyn.*, 1903, No. 2), adds 15 cases to 126 previously collected (*ante*, vol. xvii., p. 201), of advanced ectopic gestation with a living child, treated by cœliotomy. In 9 of these 15 cases the placenta was completely, in 1 partially, removed, and in 5 it had to be left. Only eight of the children were viable, but four survived. Five of the mothers died but the general mortality of the 141 cases was only 16·1 per cent., and of twenty-five women, the histories of whom were available, eight bore children after the operation, which therefore does not necessarily entail sterility.

#### ECTOPIC GESTATION IN AN ACCESSORY TUBE.

DEMONS and FIEUX (*Ann. Gyn. Obst.*, Oct.—Nov., 1902) : report a woman, aged 24, fairly healthy except for habitual constipation and painful menstruation, and five years married without any indication of pregnancy, about the end of September, 1900, had morning sickness and enlargement of the breasts ; her last period had been from August 15 to 20. On October 20 a slightly coloured discharge appeared, but soon ceased, but returned before November 6, when she had a considerable amount of hæmorrhage which, however, stopped the next day. On November 4, while micturating, she was attacked by violent pains followed by pallor, cold extremities, a tendency to collapse, and a rapid small pulse. She gradually rallied, and on the 15th laparotomy was performed, and it was found that the pregnancy had developed in an anomalous tube on the left side, which had no communication with the uterus or normal fallopian tube ; the anomalous tube had not ruptured, but there was a partial abortion into the peritoneal cavity. On the right side also there was beside the normal

tube an accessory one similar to that on the left; a probe introduced into it was arrested at 12 mm. This accessory tube was removed as well as the pregnant one.

P. Z. H.

#### OVARIAN PREGNANCY.

MENDES DE LÉON and HOLLEMAN, Amsterdam (*Revue de Gynécologie*, t. vi., n. 3), report a case of hæmatoma ovarii in which the presence of chorionic villi was demonstrated by the microscope and which therefore must be accepted as another proof of the existence of ovarian pregnancy. The history of the case was quite in accordance with such a condition, though the clinical aspect was obscured by gonorrhœa. The patient, who was a multipara, had to the left side and above the posterior vaginal vault a tumour the size of a fist, connected with the uterus by a long pedicle, and taken to be a pyosalpinx or an ovarian intra-ligamentary cystoma. Operation by the vaginal route proved inadequate on account of manifold adhesions; laparotomy disclosed a dark red, oval, hard tumour, on which an unaltered mass of ovarian substance, 1.5 cm. broad, sat like a cap, and which, though not adherent to the tube on the left side, was so to the right ovary. The remnant of the ovary was marked off from the hæmatoma by an indented line; it did not contain any corpus luteum. Microscopical examination proved the hæmatoma to be the result of an interrupted ovarian pregnancy in a Graafian follicle; it contained chorionic villi in various stages of involution. Some long strips of larger cells extending towards the hilum of the ovary were thought to be relics of the trophoblast or of the serotina. The authors urge that every hæmatoma of the ovary should be carefully examined for relics of gestation.

#### ECTOPIC GESTATION: OVARIAN.

FUETH, Leipsic (*Hegar's Beitræge z. Geb. u. Gyn.*, Bd. vi., Heft. 3), reports the following case as one fulfilling all the conditions laid down by Leopold: A woman, aged 25, after a feverish childbed, was found to have a tender tumour to the right of the uterus, and to the left another smaller and very movable. Operation revealed a fist-sized tumour at the seat of the right ovary, together with a lithopædion enveloped in omentum; further examination proved that the tumour was the ovary dilated into a sac which contained a bloodless placenta. The fimbriæ and plica infundibulo-

pelvica of the same side were free; the lithopædion was a foetus of the fifth month. As yet only 14 cases of ovarian pregnancy not open to objection have been recorded. Fueth discusses the points upon which such cases may be accepted on the basis of these recorded cases.

#### PSEUDO-CYESIS IN GENERAL PARALYTICS.

DUPRÉ (*Journ. Mental Path.*, November, 1902) says: General paralytics often imagine themselves pregnant, but I have always found such cases connected with hysteria. In one, a woman, aged 30, with distinct somatic and psychic symptoms of general paralysis, temporary mental confusion, hebetude and obtusion of the intellect, the pseudo-cyesis was expressed by most characteristic external appearances, the volume and shape of the abdomen was significant, and even the gait, specific of her imaginary condition. Direct examination proved that neither pregnancy or any abnormal condition of the genitalia existed, but when so informed she merely smiled incredulously, persisted in her belief, and had the lying-in linen prepared. The menstrual flow did not appear till after the expiration of the supposed normal term; the abnormal size of the abdomen disappeared some time later.

#### THE ORIGIN OF THE LIQUOR AMNII.

SILBERSTEIN (*Archiv f. Gyn.*, Bd. lxxviii., Heft 3), in an essay which obtained a prize at Berlin in 1901, concludes that the liquor amnii depends chiefly upon the activity of the foetal kidneys. In a case of uniovular twins of the fifth month, the one foetus exhibited a greater development, especially of the heart, kidneys and bladder, and likewise poly-hydramnios, the liquor amnii of the other was deficient in quantity.

This case is referred to in a leading article in the *British Medical Journal*, 1903, i., p. 210; see also MORRIS (*ibid.*, p. 286).

#### CRIMINAL ABORTION.

DE SMITT, Amsterdam (*Archiv f. Gyn.*, Bd. lxxvii., Heft 3), reports two cases of criminal abortion, in the one the offending bougie was removed by laparotomy from the small intestine two and a half years after its use; in the other one, in which the uterus was perforated in the seventh month, a cicatrised round scar indicated that the head of the child had been perforated at some previous time.



## ECLAMPSIA.

FOTHERGILL (*Practitioner*, February, 1903), discussing the modern theories as to the ætiology and modern methods of treatment of eclampsia, says that the idea that it is a renal disease seems to be abandoned, and it is now generally attributed to the circulation in the blood of poisons, either from the alimentary canal, or due to metabolism in the body of the mother or of the foetus, or of both. In health such poisons are either at once expelled from the body or rendered innocuous by its natural organs of defence, the liver, kidneys, thyroid and other glands, but a breakdown of any one of these throws the whole mechanism out of gear. In most pregnant women the defensive power proves adequate; in some, though there is disturbance of function in early months, adjustment results and the symptoms of intoxication pass off; in a few the poisons accumulate, and eclampsia or other serious troubles result. In some women who have suffered from eclampsia in one pregnancy, the defensive organs act perfectly well in subsequent pregnancies; in a few the toxæmia becomes worse and worse each time, the kidneys are permanently injured and chronic renal disease claims the victim. Most of the disorders of pregnancy may be attributed to intoxication, and this view, if not universally accepted, is by very many used as a working hypothesis, and has materially helped in the early diagnosis and management of the pre-eclamptic state.

The theory advanced by Albert that puerperal fever and even eclampsia was due to latent microbic endometritis during pregnancy (*ante*, vol. xvii. p. 108) was one of many that referred the poisonous origin of eclampsia to micro-organisms, a view recently revived by Mueller (*Archiv f. Gyn.*, 1902, Bd. lxvi., S. 234), who argues that as the disease only occurs in pregnant, parturient and puerperal women, the poison must be uterine in origin. Neither Albert or Mueller accuse any particular organism, nor bring evidence to prove their contention, indeed, such could only be obtained from cases fatal undelivered, or subjected to Cæsarean section.

H. Oliphant Nicholson, pointing out that the clinical features of a typical attack of eclampsia resemble those caused in animals by complete removal of the thyroid gland, considers that the principal features of the eclamptic state



can be explained by thyroid inadequacy. The thyroid gland is enlarged in normal pregnancy; this enlargement can be modified by giving thyroid extract. More iodothylin is needed in the pregnant than in the non-pregnant state. Albuminuria and eclampsia occurred in 20 of 25 cases in which the usual hypertrophy of pregnancy did not occur (Lange). Thyroid inadequacy affects the secretion of urine in many ways; iodothylin may be regarded as a diuretic, and urea, for which an adequate supply of iodothylin is necessary, as the diuretic *par excellence*. The real significance of the pre-eclamptic state is that it points to a breakdown in the defensive mechanism.

Hergott (*Annales de Gyn. et d'Obstét.* 1902, p. 1.) describes a case of atrophic myxoedema in a cretin, in whom he supposes that the thyroid inadequacy which had prevented normal development led up to the eclamptic convulsions which accompanied parturition. Referring to Nicholson's paper, Hergott, while not attributing even the majority of cases of eclampsia to thyroid inadequacy, regards the thyroid as a defensive organ like the liver and kidney, and considers that, as some cases may in his opinion be traced to renal lesions, others to hepatic insufficiency, the thyroid, and especially the parathyroid, may also account for some.

Fothergill, passing to the practical aspect of his subject, gives as symptoms generally recognised as pointing to the pre-eclamptic state, vomiting, constipation, headache, nervous irritability and abnormal pigmentation; with these there is constriction of the smaller blood-vessels and consequent rise in arterial pressure; the urine is diminished in quantity and deficient in urea. Albuminuria and oedema are more definite signs. That these symptoms should receive attention, these signs be looked for, and the excretion of urea estimated from time to time, all are agreed, and also that a condition of toxæmia, that may end in eclampsia, can be diagnosed long before the occurrence of convulsions, and may be so favourably influenced by treatment that the pregnancy may end at term without any disaster. The failure of treatment after a fair trial is allowed to indicate the interruption of pregnancy, but it is very rare.

The usual prophylactic measures are rest in bed, milk diet, purgation, and washing out of the lower bowel with copious injections of warm water. Nicholson recommends that directly there is a marked diminution in the quantity of urine, oedema, headache and vomiting, the patient

should have 5 grains of thyroid extract twice a day. His reported cases have the value of experiments, as symptoms of toxæmia which disappeared under thyroid treatment returned repeatedly when the drug was withheld, and vanished when it was again administered.

The question of operative obstetric interference in the presence of convulsions is unsettled. If when the convulsions come on labour is over, this question does not arise; if labour has commenced and dilatation has well advanced, every one is agreed that delivery should be completed as quickly as is compatible with perfect gentleness, but hæmorrhage in an eclamptic parturient may be favoured rather than checked. Even if labour has only just, or not yet begun, many authorities now urge that the uterus should be emptied as rapidly as may be with safety, and some have recently been using Bossi's dilator, followed by forceps or version. Many such patients have recovered after *artificial* delivery; they might have recovered without it. Many also have died after *accouchement forcé*, who might have recovered under medical treatment, and Fothergill thinks that the general trend of feeling is against obstetric interference. The results of Cæsarean section have, even in the practice of experts, been disastrous (mortality 54 per cent.), yet some hold that the uterus must be emptied, the quicker the better, be it by incision of the cervix, dilatation by Bossi's instrument, or Cæsarean section; others that it is only in mild cases that the patient can survive both the eclampsia and the shock of rapid artificial delivery.

As regards medical treatment opinions have changed during recent years; chloroform is used only during actual convulsions or obstetric intervention; croton oil and other purgatives have been replaced by intestinal lavage; pilocarpine by the wet pack; and morphia is now, with confidence, given to control the convulsions instead of chloral and the bromides. The empirical use of a dangerous drug like veratrum viride, popular as it is in America, is better avoided. In severe cases now, most men would bleed or use saline solution under the skin. In a recent instance, after 1·5 grains of morphia had been injected, over 15 ounces of blood were taken from the arm; three pints of saline solution were then run into the subcutaneous tissue, 15 ounces more blood removed, and more morphia given, but no obstetric treatment employed. The patient became conscious next morning, labour began, ended spontaneously and was followed by a normal childbed.

The adoption of the hypodermic use of saline solution (hypodermocleisis) is greatly due to Jardine of Glasgow, and to his insistence that the chief indication in the treatment of eclampsia—to restore the function of the kidneys—is well met by saline solution. Under this treatment the mortality in the Glasgow Maternity Hospital has fallen from 47 to 17 per cent.

The poisons which cause eclampsia, in Nicholson's opinion, are powerful vaso-constrictors, and acting especially on the renal vessels, lead to suppression of urine and in the presence of actual convulsions it is mainly by producing renal action that thyroid substance may be of value. It is necessary to produce thyroidism as rapidly as possible; 10-15 grains of the dry extract may be given by the mouth, and if necessary, repeated every hour, or if the patient cannot swallow, similar doses of the liquor thyroidei may be injected subcutaneously. Fothergill mentions a case in which morphia was given for two serious attacks of convulsions which occurred late on a Monday evening; 45 grains of thyroid extract were administered on Tuesday, and 35 grains during the first eighteen hours of Wednesday—complete anuria and semi-coma still continuing; but on Wednesday evening 25 ounces of urine were passed, and on Thursday there was free diuresis with general improvement, labour came on spontaneously in the afternoon and ended in the birth of a living child at midnight. Anuria recurring for twenty-four hours was treated by 25 more grains of thyroid, and childbed thereafter was normal.

#### ECLAMPSIA. BOSSI'S DILATOR.

OSTREIL (*Archiv f. Gyn.*, Bd. lxxvii., Heft. 3), writing from Rubeska's Prag. Clinic, reports on 72 cases occurring in the last twenty-six years; 19 were fatal. He recommends the usual conservative measures, with venesection for many cases; to induce labour the metreurynter and Bossi's dilator. He questions the uniformity of the syndromata of the disease.

#### BOSSI'S DILATOR.

KELLER (*Archiv f. Gyn.*, Bd. lxxvii., Heft. 3) has employed this instrument in 15 cases, in some of which the cervix was neither dilated nor taken up. In five instances the waters broke during its use. He insists on the advantages

of the instrument, but also on the danger of its causing deep cervical lacerations in unskilled hands.

LEDERER (*Archiv f. Gyn.*, Bd. lxxvii., Heft. 3) reports 10 cases from the German Obstetrical Klinik at Prague, in which complete dilatation was effected in from seven to at most twenty minutes. He finds that this instrument may be used, though the cervix is completely closed, in no way taken up, or otherwise prepared, and that rapid delivery with perfect asepsis can be secured by employing it.

OSTERLOB, Dresden (*Centralb. f. Gyn.*, 1903, No. 3), reports two cases: (1) eclampsia in a primipara of 28, operation two months before term. During dilatation the cervix was much lacerated, especially in the right commissure by a tear which was further extended into the parametrium during the extraction of the child after version. The whole operation lasted an hour. Recovery with healing of the laceration in fourteen days. The urine was increased in quantity even on the third day to 2,000 cm. and remained free from albumen; (2) an abortion at the end of the fifth month was terminated by the use of Bossi's dilator, without any laceration and without any subsequent reaction.

#### PREGNANCY AND LABOUR COMPLICATED BY ATRESIA AND STENOSIS OF THE VAGINA: COITUS PER URETHRAM.

KERMANNER, Graz. (*Monats. f. Geb. u. Gyn.*, Bd. xvi., S. 1029), reports two cases: in the first a large vesico-vaginal fistula had followed delivery by forceps, and on account of the extensive defect in the bladder and cicatricial changes in the vagina, colpocleisis had been performed. Two years later a stone was removed from the bladder through the dilated urethra, and nine months afterwards the woman conceived, and pregnancy went to term. Pelvic contraction was present but could not be estimated. Cæsarean section was performed, as the discharge of the lochia was necessarily obstructed, and in order to avoid future pregnancy a supra-vaginal amputation was also done. Considering the complete closure of the vagina conception must have taken place through the urethra. In the second patient there had been an operation for the close of a vesico-vaginal fistula in the fifth month of her second pregnancy, and the introitus and vagina were much deformed by cicatrices. Generally contracted rickety pelvis, spontaneous delivery, the head

of the child being moulded greatly from the normal, owing to abnormal rotation of a brow presentation. A vesico-vaginal fistula was left.

#### CÆSAREAN SECTION AFTER VENTROSUSPENSION.

ADELAIDE BROWN (*Amer. Jour. Obst.*, August, 1902) reports a case of ventrosuspension, performed in February, 1900, followed by pregnancy in 1901. In September of this year patient was admitted to hospital, and labour came on on October 24. The uterine tumour was at a low level, but the cervix was out of reach, even when the patient was anæsthetised. Cæsarean section was performed, and a dense band, three inches broad, was found joining the fundus of the uterus to the abdominal wall. When it was divided the uterus rose into the abdomen and the child was removed. The cavity of the uterus was drained by gauze carried into the vagina. In cases similar to this it is important to operate early, before the patient is exhausted by prolonged labour. The mortality of sections done for such cases is high, simply because they are not done soon enough. Let the operation be one of selection not of necessity.

J. F. J.

#### RUPTURE OF THE UTERUS AN INDICATION FOR CÆSAREAN SECTION IN SUBSEQUENT PREGNANCY.

KUESTNER, Breslau (*Centralb. f. Gyn.*, 1903, No. 1), holds that under certain conditions pregnancy in a uterus that has been previously ruptured should be terminated by Cæsarean section; but the case must be "clean," that is to say, there must not have been any vaginal examination with questionable fingers. Otherwise Porro's operation with extraperitoneal treatment of the stump would be the proper course to adopt. Moreover, Kuestner holds that under some circumstances a previous rupture of the uterus would justify the induction of abortion, though not that of premature labour.

#### VAGINAL CÆSAREAN SECTION.

BUMM, Halle (*Centralb. f. Gyn.* 1902, No. 52), briefly describes 26 recorded cases of vaginal Cæsarean section, and discusses the technique and indications for the operation. In preference to Duehrssen's method, in which both the anterior and posterior walls of the cervix are divided, he

recommends, in all cases other than cancerous, hysterectomy vaginalis anterior, in which the cervix is divided only in front. He insists that to avoid atony of the uterus, one should, after extracting the foetus, wait for the placenta to come away spontaneously. He reports 13 cases of this operation with 12 recoveries; it is indicated more particularly in eclampsia and placenta previa, and for the induction of premature labour in cases which are not cancerous.

#### THE SIGNIFICANCE OF RIGORS IN CHILDBED, ESPECIALLY IN REFERENCE TO PYÆMIA.

BUCURA, Vienna (*Monats. f. Geb. u. Gyn.*, Bd. xvi., S. 705), finds that among 28,758 women delivered in Chrobak's Klinik, 2,541 had fever in childbed, but only 78 rigors. From a review of these cases he concludes that less than six rigors do not imply pyæmia, other forms of puerperal mischief may be accompanied by a lesser number of rigors. The mortality increases with the number of rigors. Rigors may occur in septicæmia, but seldom do so; in pyæmia they are present in the greater number of cases, but may not occur at all. Lymphangitis is not absolutely characteristic of septicæmia, in which occasionally there is thrombosis of the veins, but not of the lymphatics, of the uterus; on the other hand, there is no doubt that in puerperal pyæmia there may be thrombosis of the lymphatics and none of the veins.

#### THE OPERATIVE TREATMENT OF PUERPERAL PYÆMIA.

SIPPEL, Frankfort (*Centralb. f. Gyn.*, 1902, No. 50), is induced by Trendelenburg's success in curing a case of puerperal pyæmia by ligature of the hypogastric and spermatic veins, to draw attention to the fact that in 1894, in a case of purulent phlebitis of the uterus which took the form of an acute pyæmia, he proposed to remove the uterus and resect the internal spermatic and uterine veins, though he did not actually carry out this proceeding. Of four cases of puerperal pyæmia, two recovered spontaneously, the other two could not for independent reasons be operated on, and both died. Sippel is not inclined to the extraperitoneal method suggested by Trendelenburg and would only proceed by laparotomy, and having done so would remove the uterus as well as the veins, but many a case of pyæmia recovers spontaneously, and operation is not indicated unless life is endangered.

## PUERPERAL PSYCHOSES.

WIDEROE (*Tidssk. nord. Retsmed. Psyk.*, 1902) states that in the Rotvold Lunatic Asylum during the years 1892-1900, out of 1,674 women 82 (4·82 per cent.) were suffering from puerperal psychoses, but as 17 of these cases had suffered from previous mental affections the percentage of primary puerperal cases was 3·88 per cent. He finds that infection can undoubtedly lead to mental affection in the puerperium, but that other causes play their part; childbirth itself, for instance, as in one patient who a couple of hours after each of her five confinements fell into an abnormal mental condition that persisted two or three months. Other causes are to be found in intoxication (auto-intoxication, *e.g.*, eclampsia), profuse hæmorrhage, over-exertion and mental impressions, and as a rule various etiological factors are combined. In his opinion puerperal psychoses have no special syndromata. The prognosis appears from his comparative statistics to be good, even for cases due to infection if the infection is not fatal in itself. Prognosis is better for primiparæ than for women who have previously had children, and more favourable the younger the patient.

## NUPTIAL MANIA.

DOST, Hubertusberg (*Allg. Zeits. f. Psych. u. Ps. Med.*, 1902, Bd. lix., Heft 6), describes two cases of abnormally disposed young women who became deranged after their wedding night; one died after fifteen days of delirium and bodily deterioration, the other, whose symptoms were those of mania with depression, recovered after a time. Dost attacks the popular idea that marriage is to be recommended for "nervous girls."

## TREATMENT OF THE APPARENT DEATH OF THE NEW BORN.

MINKÉVITCH, Askhabad (*Semaine Méd.*, 1902, No. 45), recommends the following method of treating the asphyxia of the new born as less violent and dangerous than that of Schultze, though based on the same principles; the infant is held vertically with the head down, the mouth and pharynx are freed from mucus, &c., and the cord having been tied and divided, it is placed sitting on a bed, or on a table covered with a cloth to prevent it slipping, with its legs extended and separated; the accoucheur, seated behind the child's back, passes one hand into each of its armpits



letting his thumbs rest on the shoulder blades and his fingers upon the anterior of the thorax; the trunk with the head is then bent forwards towards the angle between the separated legs, and the thorax is at the same time compressed by the hands, so as to lessen the size of the chest and at the same time to raise the diaphragm; then the body is brought backwards into the horizontal position, the thorax expands, causing a notable movement of inspiration. These movements of flexion and extension are repeated systematically and not more rapidly than the normal rhythm of respiration in the new born. It is well to place a small coverlet rolled up behind the child's back for the operator's thumbs to rest upon during the second movement; it is then easy to watch that the mouth is not obstructed by mucus and to notice the onset of spontaneous respiration. After two years' trial Minkévitch reports that he has never known this method to fail, and that even in pronounced asphyxia about a dozen of these movements have sufficed to revive the child.

#### CONGENITAL PERFORATION OF THE PARIETAL BONES.

PIERSOL (*Univ. Pa. Med. Bull.*, vol. xv., Nos. 6-7) reports an instance of this rare anomaly; there were two elliptical perforations, almost perfectly symmetrical in size and position; the right measured 23 by 10.5 mm., the left was slightly shorter but a little wider; the intervening ridge of bone measured 33 mm. and showed no trace of the sagittal suture, but there was a groove for the longitudinal sinus on its inner surface. There were two parietal foramina in addition to the perforations; the perforations were closed by a dense membrane formed by the inseparably blended epicranium and dura mater, without any appreciable blood vessels except a few perforating branches of small size. No doubt this anomaly is due to excessive intracranial pressure, the cause of which has not been determined.



## NOTES.

WE have recently lost by death the following gynæcologists and obstetricians :—

Mr. Robert Thomas Alexander O'CALLAGHAN, Surgeon to the French Hospital in London and to the Chelsea Hospital for Women, died on January 12, almost suddenly, at the early age of 44. He held rank as Surgeon-Lieutenant-Colonel in connection with the 1st Flintshire Royal Engineers (volunteers), and as Surgeon-in-Chief of the Langham Hospital in South Africa was mentioned in despatches and received the medal with clasps. A Fellow and at one time a Member of the Council of the British Gynæcological Society, he was a frequent contributor to the proceedings ; he was present at the meeting on January 8, but was obliged to leave early and his communication was read for him by the Secretary. The Council of the British Gynæcological Society at their last meeting requested the President to convey to Mr. O'Callaghan's family, on the part of the Fellows of the Society, an expression of the deep sympathy and sincere regret with which they have heard of his untimely death.

Dr. E. F. BIDDER, formerly Professor of Midwifery and Gynæcology at the Pawlovna Institute, St. Petersburg, at Eisenach, on November 13, in his 63rd year.

Dr. Giuseppe CROSTI, Privat-docent of Obstetrics and Gynæcology at the Faculty of Medicine of Parma.

At Erlangen, Professor Dr. GESSNER, Director of the local Frauenklinik, has died at the early age of 38. A pupil of Olshausen and of Frommel, he succeeded the latter in 1901, and had obtained a high reputation as an operator and also as a teacher.

Dr. RAPIN, extraordinary Professor of Midwifery in the University of Lausanne, aged 56.

Dr. Max SAENGER, Professor of Obstetrics and Gynæcology in the German University at Prague, and Director of

the University Frauenklinik, and co-Editor with Professor Martin, and latterly Professor von Rosthorn, of the *Monatschrift fuer Geburtshilfe und Gynækologie*, died at the Heilanstalt Bubentsch, Prague, aged 50, after a prolonged illness. He was a most skilful and experienced operator, and his successful efforts in advocating the conservative Cæsarean section instead of Porro's operation, when the latter was gaining ground in Germany, led to the former being generally known in that country as Saenger's method.

Dr. Henri Victor VARNIER, Accoucheur des Hôpitaux, Agrégé de la Faculté de Médecine de Paris, died on December 31, 1902, in his 43rd year. He was a prolific author and collaborated with Pinard and Champetier de Ribes in an "Atlas of Obstetrical Morbid Anatomy," and with Faraboeuf in an "Introduction to the Study of Midwifery." He was one of the editors of the *Annales de Gynécologie* and of the *Revue d'Obstetrique et de Pédiatrie*. It was due to Varnier's efforts and those of Pinard that symphyseotomy was revived in France.

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Dr. CIBERT has succeeded Dr. GALLOIS in the Chair of Clinical Obstetrics at Grenoble.

Dr. Henry REYNÈS has been appointed to the Chair of Pathology and Clinical Surgery and Obstetrics at Marseilles.

Professor Otto v. FRANQUÉ has accepted the Chair of Obstetrics and Gynækology in the German University at Prague.

Dr. ASSICOT has been appointed Professor of Obstetrics at Rennes.

Dr. Christino Joaquin MUNOZ has been appointed Professor of Obstetrics and Gynækology at Seville.

Dr. Otto AICHEL, Privat-docent of Obstetrics and Gynækology in the University of Erlangen, has been made a Professor at Santiago, Chili.

Dr. MALINS has resigned the post of Honorary Obstetric Physician to the Birmingham General Infirmary, after twenty-five years' service.

Professor J. W. BYERS has been appointed Attending Physician to the Belfast Maternity Hospital, the Governors of that institution desiring to afford additional facilities for

associating the lectures on Obstetrics at Queen's College with clinical teaching, as when Dr. Burden was Professor of Midwifery.

Privat-Docent Dr. SCHUHL has been entrusted with a supplementary course of lectures on midwifery in the Faculty of Medicine at Nancy.

Dr. Innocente CLIVIO has been confirmed in his appointments as extraordinary Professor of Obstetrics and Gynæcology and Director of the Obstetric and Gynæcological Institute in the University of Parma.

Privat-Docenten A. KOBLANCK, Berlin, R. BRAUN, von. FERNWALD and Hubert PETERS, Vienna, have been nominated extraordinary Professors of Obstetrics and Gynæcology.

Professor Graf von SPEE has been given the Chair of Anatomy and made Director of the Anatomical Institute and Museum in the University of Kiel.

Dr. SCHMORL, of Dresden, has been appointed to succeed Dr. Ribbert in the Chair of Pathology at Marburg.

Dr. Arthur DIENST, Senior Physician of the University Frauenklinik at Breslau, Dr. Guiseppe TROTTA at Naples, Dr. Salvatore SANTOMAURO at Padua, and Dr. Carlo FERRARESI at Sienna, have been recognised as Privat-Docenten of Obstetrics and Gynæcology.

Professor Luigi Maria BOSSI, of the University of Genoa, has been elected Deputy to the National Parliament for Varese.

Geheimrat Bernhard S. SCHULTZE, who completed his 75th year on December 29 last, has asked to be relieved of his duties as Professor and Director of the Frauenklinik at the University of Jena, from April 1, 1903.

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NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—The annual meeting was held at Manchester on January 16. The following were elected office-bearers for 1903 :—*Presidents* : J. E. GEMMELL, M.B. (Liverpool). *Vice-Presidents* : S. BUCKLEY, M.D., W. J. SINCLAIR, M.D. (Manchester) ; H. BRIGGS, F.R.C.S., T. B. GRIMSDALE, M.B. (Liverpool) ; T. KILNER CLARKE, M.D., C. J. WRIGHT, M.R.C.S. (Leeds) ; G. H. WEST JONES, M.R.C.S., SINCLAIR

WHITE, M.D. (Sheffield). *Council*: A. DONALD, M.D., A. T. HELME, M.D., ARNOLD W. W. LEA, M.D., S. NESFIELD, M.D., D. LLOYD ROBERTS, M.D., J. P. STALLARD, M.D., W. WALTER, M.D. (Manchester); W. MURRAY CAIRNS, M.B., E. T. DAVIES, M.D., P. EDWARDS, L.R.C.P., R. HUMPHREYS, M.B., J. MCCLELLAND, M.D., A. M. PATTERSON, M.D. (Liverpool); J. BRAITHWAITE, M.D., H. LITTLEWOOD, F.R.C.S., H. ROBSON, M.R.C.S., A. E. L. WEAR, M.D. (Leeds); PERCIVAL E. BARBER, M.R.C.S., J. W. MARTIN, M.D., A. A. PAYNE (Sheffield). *Honorary Treasurer*: E. OCTAVIUS CROFT, M.D. (Leeds). *Honorary General Secretary*: ARTHUR J. WALLACE, M.D. (Liverpool). *Honorary Local Secretaries*: JOHN SCOTT, M.D. (Manchester); A. STOOKES, M.B. (Liverpool); WALTER THOMPSON, F.R.C.S. (Leeds); SIDNEY BARBER, M.R.C.S. (Sheffield).

EDINBURGH OBSTETRICAL SOCIETY.—The office-bearers elected for the current year are:—*President*: Dr. JAMES RITCHIE. *Vice-Presidents*: Professor A. R. SIMPSON and Dr. JAMES HAIG FERGUSON. *Secretaries*: Drs. W. FORDYCE and L. LACKIE. *Treasurer*: Dr. WILLIAM CRAIG. *Librarian*: Dr. HAULTAIN. *Editor of Transactions*: Dr. L. Lackie. *Members of Council*: Sir JOHN HALLIDAY CROOM, Drs. MILNE MURRAY, D. BERRY HART, N. T. BREWIS, R. C. BUIST (Dundee); MICHAEL DEWAR, MATHESON CULLEN, and MOORHOUSE (Stirling).

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—*Honorary President*: Dr. H. J. KELLY (Baltimore). *President*: Dr. J. NIGEL STARK. *Vice-Presidents*: Dr. J. M. MUNRO KERR, Dr. J. K. KELLY. *Treasurer*: Dr. JOHN LINDSAY. *Secretary*: Dr. A. W. RUSSELL. *Editor of Transactions*: Dr. G. BALFOUR MARSHALL. *Reporting Secretary*: Dr. A. MACLENNAN. *Pathologist*: Dr. JOHN H. TEACHER. *Members of Council*: Dr. J. C. HERBERTSON, Dr. CARSTAIRS C. DOUGLAS, Dr. SAMUEL ALEXANDER, Dr. D. M'GILVRAY, Dr. JANE B. HENDERSON, Dr. G. N. TURNER.

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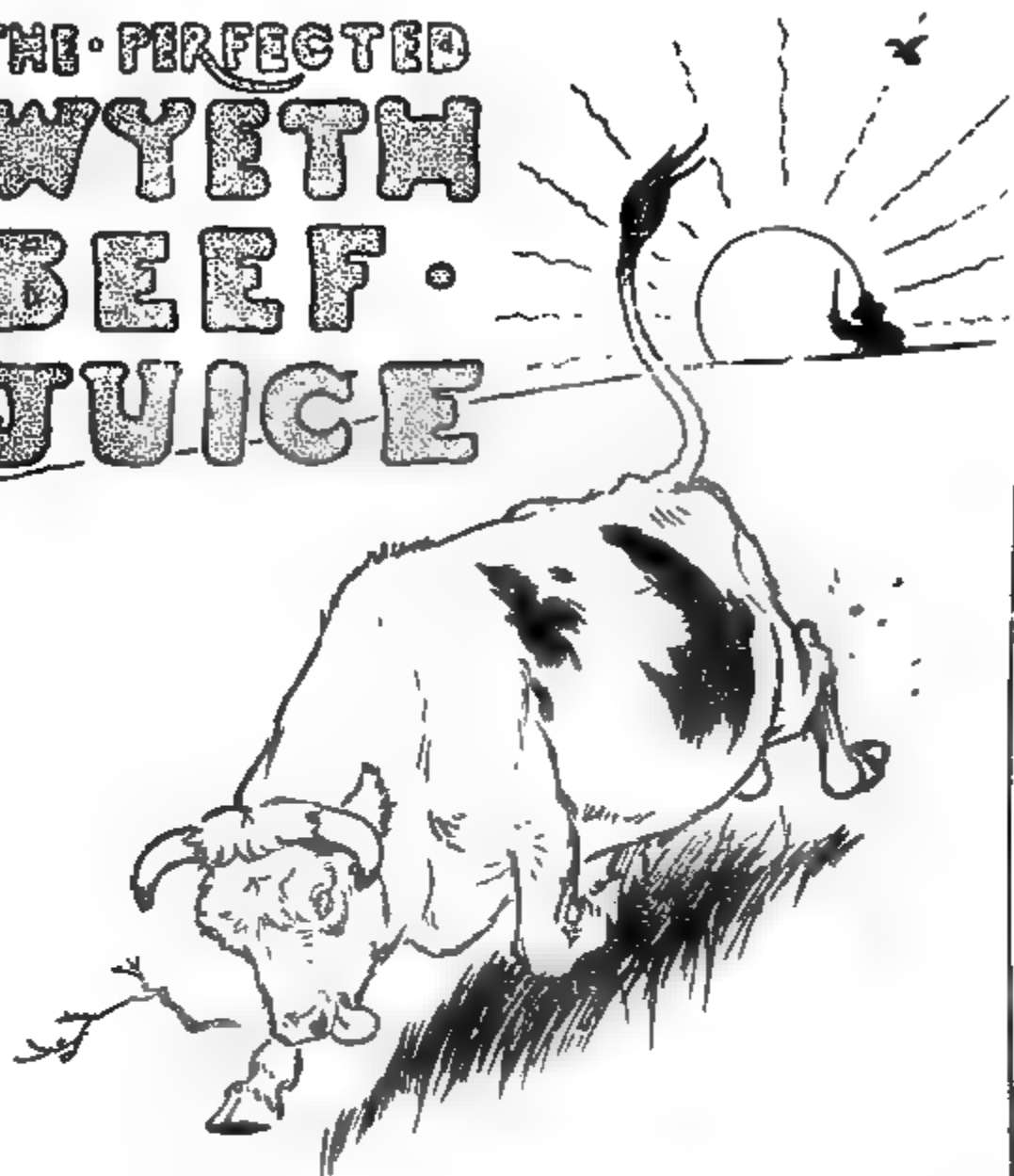
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